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VOLUME NO. 2

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EXPLANATORY NOTES

OF

INCREASES, DECREASES, AND CHANGES IN LANGUAGES

IN THE BUDGET FOR THE

DEPARTMENT OF AGRICULTURE

FOR THE

FISCAL YEAR ENDING JUNE 30, 1935

AND OF

WORK DONE UNDER EACH OF THE APPROPRIATION ITEMS

(SEE VOLUME 1 FOR INDEX)

BUREAU OF BIOLOGICAL SURVEY

(a) General Administrative Expenses

Appropriation, 1932	$83,280
Appropriation, 1933	82,935
Appropriation, 1934	76,865
Estimated Obligations 1934	69,297
Budget Estimate 1935	72,978
Increase, Budget 1935, compared with Estimated Obligations 1934	3,681

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or decrease: 5% Salary Restoration	Increase or decrease: Working Fund
Obligated:					
General administration	$73,972	$69,297	$72,978	+ $3,681	- - -
Unobligated:					
Salary reduction	7,670	4,905	- - -	- - -	- - -
Working funds reduction	1,293	2,663	- - -	- - -	- - -
Total Appropriation	82,935	76,865	72,978	- 3,887(1)	

(1) This reduction of $3,887 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$4,905
Curtailments in 1934 working funds	- 2,663
5% salary restoration	+ 3,681
	- 3,887

Work Done Under This Appropriation

The work under this appropriation relates chiefly to general administration under the Chief and Associate Chief of the Bureau; business administration including the handling of personnel matters, budget, and other matters pertaining to finances, bookkeeping, auditing of accounts, property, mail and files, and securing of quarters, etc.; and information and editorial work. The continuation of this appropriation is necessary to provide for the payment of salaries, travelling and other expenses for the general administrative force of the Bureau and of the various units thereunder; for the purchase of supplies and equipment, and for the maintenance expenses of the various units.

Emergency Funds Applicable
Under This Heading

An allotment of $990 was approved by the Civil Works Administration December 7, 1933 to cover the salaries of two persons to edit manuscripts which have accumulated over a period of time and to assist in the preparation of related press and radio materials and reports on which there is need for additional assistance due to increased activity on public works projects.

(b) Maintenance of Mammal and Bird Reservations

Appropriation, 1932	$101,830
Appropriation, 1933	82,313
Appropriation, 1934	75,000
Estimated Obligations, 1934	50,000
Budget Estimate, 1935	52,368
Increase, Budget 1935, compared with Estimated Obligations 1934	2,368

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Fund
Obligated:					
Bird refuges	$17,478	$11,232	$11,757	+ $525	- - -
National Bison Range (Mont.)	11,648	7,171	7,571	+ 400	- - -
Wind Cave Game Preserve (S.D.)	7,430	5,400	5,712	+ 312	- - -
Elk Refuge (Wyo.)	21,438	15,659	16,390	+ 731	- - -
Sullys Hill Game Preserve (N.D.)	5,977	5,274	5,474	+ 200	- - -
Niobrara Game Preserve (Nebr.)	6,141	5,264	5,464	+ 200	- - -
Total	70,112	50,000	52,368	+ 2,368	- - -
Unobligated:					
Salary reduction	4,984	3,000	- - -	- - -	- - -
Working funds reduction	7,217	22,000	- - -	- - -	- - -
Total Appropriation	82,313	75,000	52,368	- 22,632(1)	

(1) This reduction of $22,632 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $3,000
Curtailments in 1934 working funds	- 22,000
5% salary restoration	+ 2,368
	- 22,632

Work Done Under This Appropriation

The 90 wild life refuges administered by the Biological Survey under this appropriation have been selected primarily for their suitability for forms of wild life that have become greatly reduced in numbers or threatened with extinction and are located on areas affording nesting, feeding or resting grounds for water birds, or on which there are notable colonies of birds or mammals requiring protection. This number includes five big-game preserves on four of which herds of buffalo, elk and other big-game animals are maintained under fence. Hay is produced on the Elk Refuge near Jackson, Wyoming for the feeding of the elk herds that winter in that vicinity. The work carried on under the appropriation consists of general administration of the refuges, their patrolling and posting, the construction of improvements thereon when funds are available, such as buildings, fences, reservoirs, watering places for animals, roads and trails, etc.; the repair of such improvements; the raising of hay and feeding of big-game animals; removal of surplus animals; and restocking of areas through the transfer of big-game animals from other points. It is the responsibility of the Biological Survey to give protection to wild life on these refuges which have been established by Acts of Congress and Executive Orders and to carry out the purposes for which they were established--the perpetuation of species and the prevention of their extinction.

Emergency Funds Applicable Under This Heading

Allotments under the National Industrial Recovery Act aggregating $308,000 have been made for construction and repair work and for marking boundaries and posting refuges as follows:

Bird Refuges	$151,500
National Bison Range	30,000
Wind Cave Game Preserve	36,500
Elk Refuge	17,500
Sullys Hill Game Preserve	23,000
Niobrara Game Preserve	49,500
Total	308,000

This money was made available September 18, 1933 and will be expended during the fiscal year 1934 and during July and August of the fiscal year 1935.

There are no funds in the regular appropriation available for construction work or for marking boundaries and posting refuges for the fiscal years 1934 and 1935.

An additional sum of $4,500 was allotted November 25, 1933 for the construction of feed storage sheds at the Elk Refuge.

An Allotment of $12,225 was approved by the Civil Works Administration December 8, 1933 for the improvement of wild life conditions at the following refuges:

North Platte Bird Refuge (Nebr.)	$6,225
Savannah River Wild Life Refuge (S.C.)	1,000
Sullys Hill Game Preserve (N.D.)	5,000
	12,225

This allotment is being expended principally for labor in thinning and brushing out woodlands, maintaining boundary lines and in minor road repairs.

(c) Food Habits of Birds and Animals

Appropriation, 1932	$107,660
Appropriation, 1933	104,810
Appropriation, 1934	75,000
Estimated Obligations, 1934	71,640
Budget Estimate, 1935	---
Decrease, Budget 1935, compared with Estimated Obligations, 1934.....	71,640

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or decrease 5% Salary Restoration	Working Fund
Obligated:					
Control methods.....	$31,479	$20,890	---	---	$-20,890(2)
Investigation of the relations of birds and animals to agriculture.....	60,712	50,750	---	---	-50,750(3)
Total	92,191	71,640	---	---	-71,640
Unobligated:					
Salary reduction.....	7,710	3,360	---	---	---
Working funds reduction...	4,909	---	---	---	---
Total Appropriation.....	104,810	75,000	---	- 75,000 (1)	

(1) This reduction of $75,000 below the appropriation for 1934 consists of:

Impoundment of 8-2/3% of 15% pay cut	-$3,360
Reduction in working funds for 1935.....	-71,640
	-75,000

The reduction of $71,640 in working funds for 1935 includes:

(2) A decrease of $20,890 in control methods. This decrease eliminates funds for investigations to develop more efficient and economical methods for the control of injurious rodents and predatory animals and to determine the fitness of various poisons and fumigants for use in the control of these pests. It requires the discontinuance of the laboratory where special poisons are prepared for use in the field in control operations.

(3) A decrease of $50,750 in investigations of the relation of birds and animals to agriculture. This decrease eliminates investigations of the economic relations of birds and animals to agriculture, horticulture and forestry and aid in meeting problems that arise in the encouragement of beneficial species and the control of harmful ones,

Work Done Under This Appropriation

The investigations under this appropriation relate to (a) the agricultural significance of native and introduced birds and to a lesser degree of other land vertebrates; (b) improvement of methods and dissemination of knowledge thereof in the protection and increase of useful species and the control of injurious ones; (c) study of food habits of birds and animals; (d) study of the food resources of birds together with possibilities of improvement; (e) study of methods of propagation of game birds, the care of cage and ornamental birds and dissemination of information on these subjects; and (f) investigations to determine effective methods for the control of injurious rodents and predatory animals and to determine the fitness of various poisons and fumigants for use in their control.

The Federal government, under the Migratory Bird Treaty Act, investigates complaints of damage by Federally protected birds before any modifications of their protected status can be made and relief given bona fide complainants. Determination of the value of lands for refuge purposes, from the standpoint of food resources, is made by this division. Investigations under this project are also the basis upon which bird protective legislation in the United States has been formulated.

(d) Control of Predatory Animals and Injurious Rodents

Appropriation, 1932	$590,480
Appropriation, 1933	573,780
Appropriation, 1934	530,000
Estimated Obligations, 1934	382,981
Budget Estimate, 1935	91,343
Decrease, Budget 1935, compared with Estimated Obligations, 1934.....	291,638

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or decrease 5% Salary Restoration	Increase or decrease Working Fund
Obligated:					
Control of injurious rodents	$227,063	$173,271	$44,000	+$2,100	-$131,371(2)
Control of predatory animals	288,957	209,710	47,343	+ 2,228	- 164,595(3)
Total.....	516,020	382,981	91,343	+ 4,328	- 295,966
Unobligated:					
Salary reduction.....	42,911	21,313	- - -	- - -	- - -
Working funds reduction.....	14,849	125,706	- - -	- - -	- - -
Total Appropriation.....	573,780	530,000	91,343	- 438,657(1)	

(1) This reduction of $438,657 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $21,313
Curtailments in 1934 working funds	- 125,706
Further reduction in working funds for 1935.....	- 295,966
5% salary restoration	+ 4,328
	- 438,657

The reduction of $295,966 in working funds for 1935 includes:

(2) A decrease of $131,371 in rodent control.

(3) A decrease of $164,595 in predatory animal control.

Work Done Under This Appropriation

The work under this appropriation consists of cooperation and demonstrations in the control of predatory animals and injurious rodents which menace livestock, wild game, grazing lands, farm crops, fruit and forest trees, stored

agricultural products, under the Act approved March 2, 1931 (46 Stat. 1468; U.S.C. Supp. title 7, sec. 426) and public health.

Cooperative operations are conducted for the control of predatory animals and injurious rodents are carried on with Federal, State, County and private agencies. Demonstrations and advice on the best methods of controlling predatory animals and injurious rodents are given to public agencies and individuals.

Cooperative expenditures for the fiscal year 1934 will exceed $800,000, and for 1933 exceeded $1,012,000.

Emergency Funds Applicable Under This Heading

An allotment of $293,100 from National Industrial Recovery Act funds available to the Forest Service was expended under direction of this Bureau for rodent control on national forests in the following States:

Arizona	$39,000	Nevada	10,000
California	60,000	New Mexico	26,000
Colorado	15,000	Oregon	22,000
Idaho	33,100	Utah	20,000
Montana	40,000	Washington	5,000
Nebraska	5,000	Wyoming	18,000
			293,100

This money was made available September 27, 1933 and will be expended during the fiscal year 1934 and during July and August of the fiscal year 1935.

An additional allotment of $3,000 for rodent control on national forests in South Dakota was made available December 29, 1933.

An allotment of $1,290,000 was approved by the Civil Works Administration December 7, 1933 for rodent control in connection with typhus control in Georgia, Alabama and Texas in cooperation with the Public Health Service and State agencies. Of this sum $645,900 will be expended for control operations in Georgia, $387,000 in Alabama, and $257,600 in Texas. Over $1,065,000 will be expended for labor and the balance for necessary supplies and transportation.

(e) Production of Fur-bearing Animals

Appropriation, 1932	$64,360
Appropriation, 1933	62,455
Appropriation, 1934	55,000
Estimated Obligations, 1934	49,363
Budget Estimate, 1935	---
Decrease, Budget 1935, compared with Estimated Obligations, 1934	49,363

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or decrease 5% Salary Restoration	Increase or decrease Working Fund
Obligated:					
Investigations of fur animals	$13,984	$12,898	---	---	-$12,898(2)
Fur-animal Experiment Station (N.Y.)	13,541	12,850	---	---	- 12,850(3)
Rabbit Experiment Station (Calif.)	11,296	9,237	---	---	- 9,237(4)
Disease investigations	15,833	14,378	---	---	- 14,378(5)
Commercial fur production	1,059	---	---	---	---
Total	55,713	49,363	---	---	- 49,363
Unobligated:					
Salary reduction	4,856	3,136	---	---	---
Working funds reduction	1,886	2,501	---	---	---
Total appropriation	62,455	55,000	---	- 55,000(1)	

(1) This reduction of $55,000 below the appropriation for 1934 consists of:

Impoundment of 6 2/3% of 15% pay cut	- $3,136
Curtailments in 1934 working funds	- 2,501
Further reduction in working funds for 1935	- 49,363
	- 55,000

The reduction of $49,363 in working fund for 1935 includes:

(2) A decrease of $12,898, involving discontinuance of investigations of fur animals. The major work under this project consists of investigational and research work in the study of the production and conservation of fur animals.

(3) A decrease of $12,850 involving discontinuance of the Fur-Animal Experiment Station, Saratoga Springs, N. Y. Work under this project is chiefly research in feeding, breeding, and handling fur animals in captivity. Experiments are conducted with various species to determine the most satisfactory methods of raising fur animals in captivity; ascertaining conditions under which the various species can be raised profitably and produce good fur; developing improved strains by selective breeding; and learning the breeding, gestation, whelping, and prime-fur period. The major portion of the work at this station for the past three years has been confined to breeding and feeding problems and the economy of producing fur in captivity. Since it is recognized that the factors limiting success in fur farming are concerned with keeping costs of production sufficiently below the sale price of raw pelts, much attention has been given to the kinds of food and methods of feeding best adapted to bring this about. This station will be discontinued.

(4) A decrease of $9,237 for the Rabbit Experiment Station, Fontana, Calif. The activities of the station are concerned chiefly with the gathering of facts affecting those engaged in the production of domestic rabbits for food and fur. Work under this project consists of determining the best methods of producing rabbits for food and fur, preventing diseases and parasites, etc. This is a cooperative undertaking with the Fontana Farms Company and the local rabbit breeders' organization. The equipment furnished by the Fontana Farms Company includes a five-acre tract of orange grove, administration building, with offices and accommodations for laboratories, various open and closed types of houses for shelter, hutches, a sprinkler system to cool houses in hot weather, and a dwelling for the director and his family. The government provides for salaries, labor, feed, experimental pens, equipment and other operating expenses of the station. The rabbit breeders donated the original stock comprising white and red New Zealand, blue and white American, Flemish, and Chinchilla, French Silver, Havana, American sable, and Polish rabbits. When the experiment station was established at Fontana, Calif., in 1927, facilities were provided for maintaining 140 breeding animals. At the present time there are facilities for 550 animals, not including the rearing and developing pens which house approximately 150 rabbits. This station will be discontinued.

(5) A decrease of $14,378, involving discontinuance of disease investigations. The work under this project consists mainly in investigations of diseases of fur animals and diseases of rabbits. Laboratories are maintained at Washington, Minneapolis, and Fontana for disease studies, and research is conducted in conjunction with cooperating institutions for the reduction of abnormal losses in fur animals. This project will be discontinued.

Work Done Under This Appropriation

The work under this appropriation consists of research in connection with the production, conservation and utilization of fur animals, including rabbits for meat and fur. Methods employed in the production of fur on fur farms and protected areas are investigated and studies are made of methods of breeding, feeding and handling fur animals in captivity on farms. Research is conducted in the diseases of fur animals and rabbits to ascertain causes and develop methods of treatment and prevention so as to minimize losses to breeders from such causes. A fur-animal experiment station is operated near

Saratoga Springs, N. Y., and a rabbit experiment station is maintained at Contana, Calif. From the results of studies conducted at these stations recommendations are made for the guidance of fur farmers and fur tradesmen.

Emergency Funds Applicable Under This Heading

Allotments under the National Industrial Recovery Act aggregating $18,350 have been made for construction and repair work at fur-animal experiment stations as follows:

Fur-Animal Experiment Station (N. Y.)	$6,450
Rabbit Experiment Station (Calif.)	6,500
Blackwater Refuge Station (Md.)	5,400
	18,350

This money was made available September 18, 1933 and improvements have been practically completed.

An allotment of $5,750 was approved by the Civil Works Administration December 8, 1933 for improving fur-animal experiment stations as follows:

Fur-Animal Experiment Station (N. Y.)	$2,400
Rabbit Experiment Station (Calif.)	1,950
Blackwater Refuge Station (Md.)	1,400
	5,750

Of this sum $3,600 is being expended for labor and the balance for materials for pens, paint, etc.

(f) Biological Investigations

Appropriation, 1932	$128,315
Appropriation, 1933	102,500
Appropriation, 1934	85,000
Estimated Obligations, 1934	66,279
Budget Estimate, 1935	69,711
Increase, Budget 1935, compared with Estimated Obligations, 1934.	3,432

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Investigations of wild animal life.....	$45,548	$36,912	$39,477	+ $2,565	- - -
Research in forest wild life.....	16,311	14,535	14,800	+ 265	- - -
Reindeer investigations.	16,547	10,134	10,434	+ 300	- - -
Muskox investigations...	7,981	4,698	5,000	+ 302	- - -
Total.....	86,387	66,279	69,711	+ 3,432	- - -
Unobligated:					
Salary reduction.....	7,807	4,539	- - -	- - -	- - -
Working funds reduction.	8,306	14,182	- - -	- - -	- - -
Total appropriation.....	102,500	85,000	69,711	- 15,289 (1)	

(1) This reduction of $15,289 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$ 4,539
Curtailments in 1934 working funds	- 14,182
5% salary restoration	+ 3,432
	- 15,289

Work Done Under this Appropriation

Field and laboratory investigations are made of the distribution, migration, classification, life history, and relations of wild animals and birds, and of the natural life zones of the Continent. This work provides a sound basis of scientific fact required for use in the regulatory, economic, educational, and other work of the Bureau. It includes special study of the relationships of wild life to forest and grazing ranges, including investigations of game and fur-bearing animals as sources of profit on marginal or other lands and in Alaska investigations of reindeer, caribou, and muskoxen, and of the forage resources of the Territory.

Emergency Funds Applicable
Under This Heading

An allotment of $3,600 under the National Industrial Recovery Act was made for the construction of two field laboratores in Arizona for biological studies in forest wild life research.

(g) Protection of Migratory Birds

Appropriation, 1932	$220,120
Appropriation, 1933	214,240
Appropriation, 1934	198,190
Estimated Obligations, 1934	149,206
Budget Estimate, 1935	118,210
Decrease, Budget 1935, compared with Estimated Obligations, 1934. . . .	30,996

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Migratory Bird Treaty Act.	$143,786	$106,879	$105,210	+ $3,966	- $5,635 (2)
Investigations of migratory birds.....	31,396	29,327	- - -	- - -	- 29,327 (3)
Lacey Act.....	14,831	13,000	13,000	+ 500	- 500 (4)
Total.....	190,013	149,206	118,210	+ 4,466	- 35,462
Unobligated:					
Salary reduction.....	14,021	7,830	- - -	- - -	- - -
Working funds reduction...	10,206	41,154	- - -	- - -	- - -
Total appropriation.....	214,240	198,190	118,210	- $79,980 (1)	

(1) This reduction of $79,980 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 7,830
Curtailments in 1934 working funds	- 41,154
Further reduction in working funds for 1935	- 35,462
5% salary restoration	+ 4,466
	- 79,980

The reduction of $35,462 in working funds for 1935 includes:

(2) A decrease of $5,635 in enforcement of Migratory Bird Treaty Act. This decrease necessitates abandoning two of the 22 United States Game Protector districts now maintained by the Government, for enforcement of the regulations under the Migratory Bird Treaty Act covering the protection of birds migrating between the United States and Canada.

(3) A decrease of $29,327, involving discontinuance of investigations of migratory birds. Work under this project consists of investigations of the abundance, migratory movements and conditions which affect ducks, geese and other migratory fowl protected under the Migratory Bird Treaty Act. The work includes special field investigations throughout the United States and on important breeding grounds in Canada; banding operations to secure specific information regarding migration routes and the influence of the more important breeding grounds and concentration areas on the waterfowl supply throughout the country; also the work of hundreds of cooperators throughout the United States and Canada in reporting information secured as a result of their observations. The effects of settlement, drainage, agricultural operations, and drought conditions over a large part of the most important breeding areas of ducks in the northern United States and in the prairie provinces of Canada are studied to secure information used in providing protection and favorable conditions for the breeding stocks of these game birds.

(4) A decrease of $500 in enforcement of the Lacey Act. Work under this project is chiefly regulatory, involving the enforcement of the Lacey Act of March 4, 1909, which prohibits the importation of wild birds and mammals which may be injurious to agriculture or horticulture, and to enforce the provision prohibiting the transportation in interstate commerce by common carrier of game killed or shipped in violation of local laws. Inspection service is maintained at principal ports for the purpose of stopping the introduction of injurious species into this country from the standpoint of farmers and horticulturists. The suppression of illegal interstate shipments of wild animals or parts thereof is of great benefit to the various States and goes far toward assisting in the maintenance of a supply of fur-bearing animals. The records of fur dealers, express companies, etc., are examined for the purpose of obtaining evidence of such illegal shipments with a view to prosecution. If it were not for the vigilance of the Federal personnel engaged in this particular work, the maintenance of an adequate supply of beaver and other highly valuable fur-bearing animals would be greatly endangered.

Work Done Under this Appropriation

The purpose of this appropriation is the enforcement of the Migratory Bird Treaty Act of July 3, 1918, (39 Stat. 1702 U.S.C., title 16, secs. 703-711) to carry into effect the treaty with Great Britain for the protection of birds migrating between the United States and Canada, and the enforcement of Sections 241, 242, 243 and 244 of the Lacey Act of March 4, 1909 (U.S.C., title 18, secs. 391-394) and the administration of Section 1 of the Act of May 25, 1900, (U.S.C., title 16, sec. 701).

Work under the Migratory Bird Treaty Act includes the determination of open or closed seasons for migratory game birds, the maintenance of a force of game protectors throughout the country and allied duties for the protection of migratory game and nongame species. Investigations are made of the abundance, migratory movements, and conditions which affect ducks, geese and other migratory birds protected under the Migratory Bird Treaty Act.

The Act of March 4, 1909 (U.S.C., title 18, secs. 391-394) prohibits the importation into the United States of birds and mammals which may be injurious to agriculture or horticulture; provides for regulating the entry of other foreign wild mammals and birds into this country, and prohibits the

transportation in interstate commerce by common carrier of game killed or shipped in violation of local laws.

Emergency Funds Applicable
Under This Heading

An allotment of $34,650 under the National Industrial Recovery Act has been made for the construction of six boats for the use of U. S. Game Protectors in patrol work and for the reconditioning of three boats now in use. This money was made available September 18, 1933, and will be expended during this fiscal year.

(h) Enforcement of Alaska Game Law

Appropriation, 1932	$110,445
Appropriation, 1933	103,566
Appropriation, 1934	90,000
Estimated Obligations, 1934	64,000
Budget Estimate, 1935	66,598
Increase, Budget 1935, compared with Estimated Obligations, 1934	2,598

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Enforcement of Alaska Game Law.....	$97,103	$64,000	$66,598	+ $2,598	- - -
Unobligated:					
Salary reduction.....	6,364	3,461	- - -	- - -	- - -
Working funds reduction..	99	22,539	- - -	- - -	- - -
Total Appropriation.....	103,566	90,000	66,598	- $23,402 (1)	

(1) This reduction of $23,402 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 3,461
Curtailment in 1934 working funds.	- 22,539
5% Salary restoration	+ 2,598
	- 23,402

Work Done Under this Appropriation

The enforcement of the Alaska Game Law of January 13, 1925 (U. S. Code, Title 48, Secs. 192-211), as amended by the Act of February 14, 1931 (46 Stat. 1111 - U. S. Code, Suppl., Title 48, secs. 192-207), is committed to the Alaska Game Commission, which is composed of four resident members of Alaska, appointed by the Secretary of Agriculture, and the Chief Representative of the Biological Survey stationed in the Territory, who is the Executive Officer of the Commission. The duties of the Commission are to administer the law and to enforce its provisions and the regulations thereunder adopted by the Secretary of Agriculture.

The work is administered through 7 warden districts. Fifty percent of the receipts from licenses, fines and forfeitures is covered into the Treasury of the United States as miscellaneous receipts and the balance is turned over to the Treasury of the Territory for the Territorial school fund.

The wild life of Alaska constitutes one of the Territory's major resources. Its conservation and perpetuation is of vital importance to Alaskans, particularly to the native Indians and Eskimos who are almost entirely dependent upon it, and is of great interest to conservationists and lovers of wild life, not only in various sections of continental United States but also in foreign countries, particularly Canada.

Emergency Funds Applicable Under This Heading

Allotments of $184,700 have been made for construction work under the National Industrial Recovery Act as follows:

Construction of floats, docks and storehouses . . .	$10,200
Construction of 7 headquarters buildings	21,000
Construction of 7 patrol boats	153,500
	184,700

This money was made available September 18, 1933, and will be expended during the fiscal year 1934.

An allotment of $29,755 was approved by the Civil Works Administration December 14, 1933, for the transplanting of fur-bearing and game animals in Alaska to depleted areas to provide a means of future increase in the incomes of the natives from trapping and to provide additional game meat supplies to assist them in becoming self-supporting. Over $20,400 will be expended for wages (principally to natives) and the balance for supplies, camp equipment and transportation of workers and captured animals.

(i) Upper Mississippi River Wild Life Refuge

Appropriation, 1932	$197,780
Appropriation, 1933	79,478
Unexpended balance carried forward from 1932	+113,683
Total appropriation, 1933	193,161
Appropriation, 1934	61,700
Unexpended balance carried forward from 1933	+ 28,755
Total appropriation, 1934	90,455
Estimated Obligations, 1934	61,602
Budget Estimates, 1935	33,795
Decrease, Budget 1935, compared with Estimated Obligations, 1934	27,807

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Fund
Obligated:					
Administration	$ 40,902	$ 30,584	$ 31,933	+ $ 1,349	- - -
Acquisition of land	116,236	31,018	1,862	+ 69	- $ 29,225 (2)
Total	157,138	61,602	33,795	+ 1,418	- 29,225
Unobligated:					
Salary reduction	5,378	3,381	- - -	- - -	- - -
Working funds reduction	30,645	25,472	- - -	- - -	- - -
Total appropriation	193,161	90,455	33,795	- 56,660 (1)	

(1) This reduction of $56,660 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$ 3,381
Curtailments in 1934 working funds	- 25,472
Further reduction in working funds for 1935	- 29,225
5% salary restoration	+ 1,418
	- 56,660

(2) The reduction of $29,225 in working funds for 1935 for acquisition of land is due to the completion of many phases of acquisition work now in progress under this project, and no additional funds are being requested at this time under the authorization of $1,500,000 covering this refuge. $888,533 has been appropriated up to and including the fiscal year 1934.

Work Done Under this Appropriation

This activity was initiated by special act of Congress, under date of June 7, 1924, (U.S.C., title 16, secs. 721-731) which authorized an appropriation of $1,500,000 to carry out its provisions. The acquisition of lands is authorized in the over-flow area of the Mississippi River in the States of Illinois, Iowa, Minnesota, and Wisconsin, between Rock Island, Ill., and Wabasha, Minn., a distance of approximately 300 miles, for the purpose of establishing a refuge for wild animals and birds, and for the conservation of wild flowers and aquatic plants, under the Department of Agriculture, and as a refuge and breeding place for fish and other aquatic animal life, under the Department of Commerce. The refuge is thus under the joint jurisdiction of the Departments of Agriculture and Commerce. Land acquisition has proceeded as rapidly as possible under the price limitations of the Act and the available appropriations. The work incident thereto includes the examination and valuation of the lands, negotiations with tract owners for the purpose of arriving at satisfactory price agreements, the examination of titles and boundary surveys of the lands being acquired. At the close of the fiscal year 1934 approximately 145,912 acres will have been acquired for refuge purposes. The lands are placed under administration for the purposes of the Act as rapidly as acquisitions permit the consolidation of satisfactory units for economical administration. This year seventeen such units totaling 22,124 acres of land and 1,145 acres of meandered water are being administered as inviolate sanctuaries for wild life. These areas are posted against trespass. The public is permitted to make restricted use of the remaining Federal owned lands in the project for recreational and other purposes. The refuge is patrolled for the protection of wild life and the prevention of trespass and for the detection and suppression of forest fires, together with the supervision of special uses authorized by permits or otherwise.

This refuge has abundantly demonstrated its suitability for the purposes intended and is one of the most magnificent projects ever undertaken by any government for the conservation of wild life.

Emergency Funds Applicable Under This Heading

An allotment of $26,000 under the National Industrial Recovery Act has been made for locating and permanently marking refuge boundaries to prevent trespass and for the construction of fire lines.

(j) Bear River Migratory Bird Refuge - Administration

Appropriation, 1932	$19,900
Appropriation, 1933	32,100
Appropriation, 1934	20,000
Estimated Obligations, 1934	14,700
Budget Estimate, 1935	15,319
Increase, Budget 1935, compared with Estimated Obligations, 1934	619

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Fund
Obligated:					
Bear River Migratory Bird Refuge - Administration	$ 30,684	$ 14,700	$15,319	+ $ 619	- - -
Unobligated:					
Salary reduction	1,404	823	- - -	- - -	- - -
Working funds reduction..	12	4,477	- - -	- - -	- - -
Total Appropriation.....	32,100	20,000	15,319	- 4,681 (1)	

(1) This reduction of $4,681 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 823
Curtailments in 1934 working funds	- 4,477
5% salary restoration	+ 619
	- 4,681

Change in Language

Language pertaining to the unexpended balance of the appropriation for the establishment of the Bear River Migratory Bird Refuge has been dropped as this appropriation will be exhausted during the fiscal year 1934. Language pertaining to the Administration of the refuge has been amended to give references to the Act and resolution under which the refuge was established.

Work Done Under This Appropriation

This project was inaugurated under special legislation of April 23, 1928, by Congress (U. S. Code, Suppl. IV, Title 16, secs. 690-690h), to eliminate the death trap for waterfowl and other migratory birds that had long existed in the bay at the mouth of Bear River, Great Salt Lake, Utah. Establishment of this refuge, which includes marsh and water areas totalling 64,255 acres, was advocated by game officials, sportsmen, and other conservationists from every section of the United States. It is one of the most important breeding, feeding, and concentration areas for ducks, geese, and shorebirds, in the West. Ducks banded by the Biological Survey cooperators on these marshes have been recovered in 14 States in the Great Basin and Rocky Mountain region and in Canada and Mexico. To increase the usefulness of the refuge and to prevent losses from botulism, river-control works and feeder canals have been constructed. The massive outer and division dikes provide for the fresh-water flooding of approximately 28,000 acres in five units. Formal administration of the refuge became effective October 1, 1933. Forty percent of the flooded area was designated as public shooting grounds as permitted by Act of Congress of April 23, 1928, establishing the refuge. The remainder is administered as an inviolate sanctuary.

Administration of the refuge includes the maintenance of the outer and division dikes, the operation and maintenance of the river control works, construction and repair of roads and guard cabins, the patrolling and protection of the refuge, and planting and seeding of vegetation for the production of food and nesting sites for birds.

Emergency Funds Applicable
Under This Heading

Allotment of $58,000 under the National Industrial Recovery Act has been made for construction of an administration building, telephone line, towers, fencing, roads, and the construction and repair of dikes. Part of this work has been completed and the balance will be finished during the fiscal year 1934.

(k) Migratory Bird Conservation Refuges

Appropriation, 1932	$405,000
Appropriation, 1933	318,000
Appropriation, 1934	89,525
Estimated Obligations, 1934	59,193
Budget Estimate, 1935	62,419
Increase, Budget 1935, compared with Estimated Obligations, 1934	3,226

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 Estimated	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Fund
Obligated:					
Administration of migratory bird conservation refuges.	$15,207	$14,471	$18,119	+ $ 773	+ $2,875(2)
Investigation of food resources of refuge areas...	4,834	5,277	5,400	+ 123	- - -
Disease investigations.....	4,748	3,700	3,900	+ 200	- - -
Acquisition of land.....	266,524	35,745	35,000	+ 1,500	- 2,245(3)
Total.....	291,313	59,193	62,419	+ 2,596	+ 630
Unobligated:					
Salary reduction.....	6,031	3,358	- - -	- - -	- - -
Working funds reduction....	20,656	26,974	- - -	- - -	- - -
Total Appropriation.....	318,000	89,525	62,419	- 27,106 (1)	

(1) This reduction of $27,106 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.	- $3,358
Curtailments in 1934 working funds.	- 26,974
Increase in working funds for 1935.	+ 630
5% salary restoration	+ 2,596
	- 27,106

The increase of $630 in working funds for 1935 is accounted for as follows:

(2) An increase of $2,875 in administration of refuges. The sum of $14,471 available for the fiscal year 1934 has been insufficient to administer Crescent Lake, St. Marks, Cape Romain, Swanquarter, and Blackwater Refuges. This sum has been supplemented by Emergency Conservation Funds at St. Marks, Blackwater, and Swanquarter Refuges during the present year. There are no funds available for other refuges established under this Act. In order to provide the minimum required for 1935, $2,245 has been diverted from the project for acquisition of land but an additional allowance of $630 is still required for administration and protection of established refuges.

(3) A decrease of $2,245 in acquisition of land project. This sum has been transferred to the administration project to assist in financing the cost of administration of the refuges acquired under this Act.

Change in Language

Language appropriating for 1935 the unexpended balance of the appropriation for 1934 for Migratory Bird Conservation refuges and for the expenses of the Migratory Bird Conservation Commission has been omitted.

Work Done Under This Appropriation

The Migratory Bird Conservation Act of February 18, 1929 (U.S.C., Supp. IV, title 16, secs. 715-715r) authorized a 10-year program for the establishment of a national system of refuges for the conservation and perpetuation of waterfowl and other migratory game birds. Of the $2,875,000 authorized to be appropriated including the fiscal year 1934 $1,082,525 has been appropriated. Work under this appropriation includes the maintenance and administration of refuge areas acquired under this Act and the development of such areas and other refuges; the elimination of loss of migratory birds from alkali poisoning, oil pollution or other causes; the study of food resources of refuge areas and improvement of food and cover; and the acquisition of land and water for migratory bird refuges throughout the United States.

Emergency Funds Applicable Under This Heading

Allotments aggregating $338,250 have been made under the National Industrial Recovery Act for construction and repair work on the various migratory bird refuges established under the Conservation Act. This money was made available September 18, 1933, and will be expended for the most part during the fiscal year 1934 with a small amount being expended during July, August, and September of the fiscal year 1935.

An allotment of $173,200 was approved June 7, 1933, from Emergency Conservation Funds for the establishment of camps on the Blackwater, Md., Swanquarter N. C., and St. Marks, Fla., migratory bird refuges. These sanctuaries are all on the flight line of wild fowl in the East. The Blackwater refuge covers an area of 8,241 acres, including marshes and waters where black ducks and blue-winged teal breed and mallards and pintails concentrate. Many shorebirds also find sanctuary on the refuge. The Swanquarter refuge, embracing 15,492 acres of land and marsh, is a notable resting ground for swans, geese and other wild fowl. The largest of these three sanctuaries, the St. Marks refuge, comprises 35,611 acres of land and water frequented by ducks, geese, sanderlings and other shorebirds.

Work at the Blackwater camp, Maryland, was completed and the camp workers transferred to another locality on November 21. The camps on the North Carolina and Florida refuges have been extended for an additional six months.

The major improvement activities of the C.C.C. at the Blackwater migratory bird refuge during a period of approximately four and one-half months, included erecting a telephone line 4 1/2 miles in length, removing fire hazards on approximately 50 acres of woodland, clearing 2 miles of roadside, improving timber stands on 15 acres, constructing 1 mile of new road, renewing and repairing 6 miles of existing roads, erecting three lookout towers, drilling two 400-foot wells and constructing a bridge, 1/2 mile of fence, a machine shed and an addition to the headquarters dwelling.

Much more extensive programs of the same general type are in progress at the North Carolina and Florida refuges. Among major projects outlined for the Swanquarter refuge is the creation of nine ponds to improve conditions for the

growth of waterfowl food plants. Other principal projects at this refuge include 13 miles of firebreak, 5 miles of trail and 2 miles of road construction across a swamp area where corduroying is required. The area originally had no roads or other improvements of value, and in the past years had been subject to periodic fires, causing considerable damage to the resident species of wild life. Fire-prevention improvements now being provided will greatly minimize fire losses.

At the St. Marks refuge work is progressing on 17 miles of truck trails, 20 miles of firebreak, 27 miles of telephone line construction, and 6 vehicle bridges. A survey is being made for the excavation of another considerable area for the creation of fresh-water ponds, and other projects of importance to the successful development of the area for wild life are being carried out.

An allotment of $8,500 was approved by the Civil Works Administration December 8, 1933, for the improvement of wild life conditions at the Blackwater Migratory Bird Refuge. This will supplement work done under Emergency Conservation Funds and not completed when this camp was transferred. $7,550 will be expended for wages in road and dike construction, brushing out woodlands, grading, seeding, etc., and the balance for necessary materials for these projects.

Authorization Covering Purchase of Passenger-carrying Vehicles

A reduction from $15,250 to $5,200 is submitted in the passenger-carrying vehicle authorization for 1935 since under present conditions funds are available only for the most urgently necessary replacements, as set forth on the Budget schedule and no additional cars will be purchased.

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FOREST SERVICE

(a) General Administrative Expense

Appropriation, 1932	$370,640
Appropriation, 1933	352,580
Appropriation, 1934	327,819
Estimated Obligations, 1934	$257,830
Budget Estimate, 1935	258,092
Increase, Budget 1935, compared with Estimated Obligations, 1934	262

PROJECT STATEMENT

Projects	1933 (Estimated)	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
General Administration	$309,354	$257,830	$267,878	+ $ 10,048	- - -
Unobligated:					
Salary reduction	31,337	18,915	- - -	- - -	- - -
Working funds reduction	11,889	51,074	- - -	- - -	- - -
Deduct on account of Public Works Allotment of	- - -	- - -	-9,786	- - -	- - -
Total Appropriation	352,580	327,819	258,092	-69,727 (1)	

(1) This reduction of $69,727 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 18,915
Curtailments in 1934 working funds	- 51,074
Budget provision for financing miscellaneous expenses from Public Works allotment in 1935	- 9,786
5% salary restoration	+ 10,048
	- 69,727

Work Done Under This Appropriation

This appropriation is used for salaries and expenses of employees in the Washington office engaged on general administrative and service - wide subtechnical activities pertaining to management of the National Forests and for general service activities.

For a number of years the Forest Service has recognized the need for holding the number of employees in the central office to the lowest possible minimum consistent with work demands. Thru constant effort in this field the number of employees in the Washington office has been reduced from 225 in 1920 to 193 in 1933. During this period the volume of work has steadily increased to the point where the present organization is severely taxed to carry on the work. This increase in volume is attributable to three main causes as follows: (1) Increased activities of the Forest Service, (2) Large Public Works and other emergency appropriations, and (3) The tendency towards centralization brought about by establishment of various coordinating and other services.

(b) Protection and Administration of National Forests

Appropriation, 1932	$7,289,240
Appropriation, 1933	7,131,244
Appropriation, 1934	6,568,880
Estimated Obligations, 1934	5,789,491
Budget Estimate, 1935	5,618,353
Increase, Budget 1935, compared with Estimated Obligations, 1934	171,138

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Fire Prevention	$1,950,000	$1,725,000	$1,807,112	$+82,112	- - -
Fire Suppression	250,000	200,000	209,470	+ 9,470	- - -
Construction of Improvements	625,660	645,491	676,118	+30,627	- - -
Maintenance of Improvements	513,000	529,000	554,048	+25,048	- - -
Timber Sales	750,000	765,000	801,228	+36,228	- - -
Development of Forestry Practice	50,000	50,000	52,372	+ 2,372	- - -
Timber Survey	140,000	170,000	178,049	+ 8,049	- - -
Planting	57,000	40,000	41,894	+ 1,894	- - -
Free Use of Timber	25,000	25,000	26,186	+ 1,186	- - -
Tree Diseases and Insects	375,000	200,000	209,470	+ 9,470	- - -
Administrative Investigations	55,000	30,000	31,421	+ 1,421	- - -
Grazing Administration	900,000	725,000	759,332	+34,332	- - -
Range Reconnaissance	40,000	20,000	20,947	+ 947	- - -
Fish and Game	120,000	100,000	104,735	+ 4,735	- - -
Land Adjustments	75,000	50,000	52,372	+ 2,372	- - -
Land Exchange and Acquisition	80,000	25,000	26,186	+ 1,186	- - -
Special Uses	195,000	180,000	183,940	+ 3,940	- - -
General Surveys and Maps	160,000	175,000	183,287	+ 8,287	- - -
Control Recreation Areas	80,000	60,000	62,844	+ 2,844	- - -
Timber Stand Improvement	25,000	75,000	78,526	+ 3,526	- - -
Total	6,465,660	5,789,491	6,059,537	+270,046	- - -

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Deduct Transfer of funds from Emergency Construction 1932	- $ 50,000	- - -	- - -	- - -	- - -
Add Transfer of funds to Research, Forest Management	+ 9,000	- - -	- - -	- - -	- - -
Unobligated:					
Salary reduction	549,454	330,057	- - -	- - -	- - -
Working funds reduction ...	157,167	419,332	- - -	- - -	- - -
Impoundment on funds received by transfer from War Dept.....	- 37	- - -	- - -	- - -	- - -
Deduct on account of Public Works Allotment of	- - - -	- - -	-441,184	- - -	- - -
Total Appropriations	7,131,244	6,568,880	5,618,353	-950,527 (1)	

(1) This reduction of $950,527 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut		- $360,057
Curtailments in 1934 working funds		- 419,332
Budget provisions for financing from Public Works Allotment in 1935:		
Fire Prevention	$231,714	
Tree diseases and insects.....	209,470	- 441,184
5% salary restoration		+ 270,046
		- 950,527

As shown by the foregoing table, the increase of $270,046 in estimated obligations for 1935 over the estimated obligations for the Fiscal Year 1934 is for the purpose of restoring 5% of the 15% cut in salaries and wages paid from this appropriation and does not change the status of funds available for other than personal services.

Change in Language

The changes in language in this appropriation are recommended for the following reasons:

The Kaibab Forest in Arizona (the only Arizona Forest formerly administered by Region 4) has been transferred to Region 3. The word "Arizona" has therefore been omitted from the list of States under Region 4.

The words "Oklahoma" and "Texas" have been included in the Region 7 list of States because of the acquisition of forest land in Oklahoma and the prospective purchase of forest land in Texas.

The words "Illinois", "Iowa" and "Missouri" have been included in the Region 9 list of States because of prospective purchase of forest lands in these three states.

Work Done Under This Appropriation

This appropriation is used for the general operating expenses of the National Forests and National Forest Regional Offices, including the following items:

(a) Salaries and travel expenses of the men in charge of the various units of organization such as National Forest Regions, National Forests, and Ranger Districts. On October 1, 1933 there were nine National Forest Regions, 143 National Forests, 693 Ranger Districts, and 3 Purchase Units. Because of the extensive programs for acquisition of forest lands launched in 1934 and which will continue in 1935, under which some 6,000,000 acres will be added to the National Forests, it is anticipated that the above number of units will be increased by 4 Forests and 15 Ranger Districts. These men manage the 162,000,000 acres involved and direct the administrative, technical, protective and improvement activities carried on in the units for which they individually are responsible. During the course of a year they will devote varying portions of their time to practically all of the projects listed. For some of the projects worked on and supervised there are special appropriations, but the salaries and, except under certain special conditions, the travel expenses of the men in charge of administrative units are paid entirely from this appropriation. It would be impossible to exert financial control over the many general and special appropriations if an attempt were made to pay the salaries and expenses of men in charge of physical units from special appropriations in proportion to the varying amounts of time required from time to time on the different projects. Distribution of time in this managerial force to various activities accounts for a large part of the charges from this appropriation to projects for which there are special appropriations.

(b) Salaries and expenses of the assistants to these supervisory officers including the salaries of clerical employees. Exceptions are that when such an assistant or clerk is wholly employed on an activity such as tree planting or road construction, for which a special appropriation is available, his salary and any necessary travel expenses are paid from the special appropriation. When such a man does work for which there is a special appropriation and an adjustment is required as a matter of law and fairness between appropriations, the cost of his time and travel expense, if any, is so divided. Such adjustments are controlled by instructions which are based on the related Acts of Congress, and policies and purpose of Congress and the Secretary of Agriculture.

(c) Salaries of fire guards, scalers and other short-term employees engaged on work for which there is no special appropriation. Some 3,400 fire guards are employed during the fire season as required by the fire danger prevailing in the National Forest regions. Periods of employment vary from one to six months and average about three months.

When such work as building or fence maintenance or construction is needed at the station of a fire guard he is employed on such work if arrangements can be made so that he can be called by telephone when a fire is discovered. Also, if periods of wet weather occur during the fire season, fire guards are used so far as possible on any other work needed, such as improvement work of all kinds. In both of such instances the guard is paid from the special appropriation if funds are available.

(d) Fire Protection equipment is purchased from this appropriation to the extent that funds can be made available therefrom.

(e) Miscellaneous costs of operation such as rent of offices, telephone, and telegraph tolls, freight, express, supplies and equipment, not provided by special appropriations.

The activities provided for wholly out of this appropriation include the following:

Fire prevention	Grazing administration
Timber sales	Fish and Game
Development of forestry practice	Special uses
Free use of timber	General surveys and maps
Tree diseases and insects	Control of recreational areas

The activities listed in the project statement for this appropriation for which there are also special appropriations, are given below:

Fire suppression	Planting
Construction of improvements	Administrative investigations
Maintenance of improvements	Range reconnaissance
Timber surveys	Land adjustments
	Land exchange and acquisition

In addition to the above activities, the Bureau cooperates with the War Department in the examination and appraisal of lands being acquired in connection with the project, Flood Control, Mississippi River and Tributaries. However, this activity is financed by transfer of funds from the War Department.

Although expenditures are shown on a project basis for this appropriation in setting up allotments, provision must first be made for the salaries and expenses of men in charge of vast units of valuable Government land, such as ranger districts, National Forests and National Forest Regions, and for their yearlong assistants and fire guards. The term "expenses" as used above includes such items as rental of headquarters, telephone and telegraph, travel expenses, freight and express, supplies and equipment not provided by special appropriations, etc. These allotments for the skeleton organization of the Forest Service take up by far the greater portion of the appropriation. There are not many specialists, or men who ordinarily work on a single activity in this group, and these few are always used on other work if not needed, temporarily, in their special activity. The charges to the projects listed above represent, to a large extent, a distribution of the time of this group of employees and a proration of the expenses enumerated above.

The transaction of Government business is becoming so complex and is circumscribed by so many constantly changing rules, regulations, restrictions, limitations and requirements that it is difficult to make progress in the direction of more economical administration. The Forest Service has undertaken a campaign to reduce the amount of paper work necessary in carrying on the work of the Bureau. This has been largely ineffective because of the requirements of various Federal agencies. The intricacies of the Economy Acts; the Emergency Conservation Work Program and the National Industrial Recovery Act, and present methods of Federal financial control, for example, have placed a tremendous burden upon administrative and accounting officers throughout the Service.

Provision is also made in this appropriation for the salaries and expenses of men engaged continuously on specific tasks, such as fire, insect and blister rust control, timber sales and supervision of recreational areas. The four projects involved are Fire Prevention, Timber Sales, Tree Diseases and Insects, and Control of Recreational Areas, the justificationsfor continuance of which are given below:

Fire Prevention

A force of approximately 3,400 men is employed for an average period of three months during the fire season for fire prevention purposes. This project must be continued if protection of these public properties is to be maintained. The maintenance of an adequate fire control force during the period of economic unrest is of paramount importance because of the marked increase in the number of incendiary fires which are started in the hope of providing work for the incendiarists. During 1934 the Forest Service is making every effort to maintain this organization at its 1933 level. This means that the substantial reduction which was made in this appropriation in 1934 will have to be taken out of other activities.

Timber Sales

On large timber sales men are employed solely for the purpose of scaling and marking timber and to administer the sales. The timber sale business on the National Forests decreased in 1932 and 1933 about in proportion with the diminished rate of lumber production throughout the country but is now increasing with the general revival of business activities. While there has been no complete shutting down of all going operations, many operators have continued to cut, but at a lower rate, under existing long-term contracts. On such sales the Forest officers in charge of the sale must remain on the ground, and on large sales a number of scalers must also be maintained. The reduction has been greatest on the West coast where the unit cost of sale administration has been lowest. A large part of the reduction in the appropriation for 1934 was met from this activity.

Tree Diseases and Insects

Separate allotments are set up for project work in these activities, which includes white pine blister rust control and bark beetle and other insect control work.

Control of Recreational Areas

A few men are employed during the tourist season to enforce fire and sanitary regulations on some of the larger camp grounds on the National Forests. The number of tourists visiting National Forests is increasing rapidly and it will be necessary as time goes on to increase the number of such men. Unstable employment conditions have served to increase the number of campers on National Forest lands to a marked degree and it has not been possible to reduce the force of men stationed at these camps. However, the greater portion of the expenditures under this heading, as shown on the project statement, represent the time of rangers and forest guards spent in supervising and cleaning up camp grounds incidental to their other work. The number of men employed primarily for the purpose of supervising camp grounds is small.

(c) Fighting Forest Fires

Appropriation, 1932.	$4,360,000 (a)
Appropriation, 1933.	1,100,000 (b)
Appropriation, 1934.	100,000
Estimated Obligations, 1934	100,000
Budget Estimate 1935	100,000

PROJECT STATEMENT

Projects	1933	1934 Estimated	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Fire suppression	$964,166	$33,000	$33,000	- - -	- - -
Protection of lands, railroads forfeiture suits.....	90,611	67,000	67,000	- - -	- - -
Total.....	1,054,777	100,000	100,000	- - -	- - -
Unobligated:					
Salary reduction....	43,071	- - -	- - -	- - -	- - -
Working funds reduction.....	11,152	- - -	- - -	- - -	- - -
Total appropriation..	1,100,000	100,000	100,000	- - -	

(a) Includes $4,260,000 provided in First Deficiency Act, 1932.
(b) Includes $1,000,000 provided in First Deficiency Act, 1933.

Work Done Under This Appropriation

This appropriation is used primarily for the suppression of forest fires, with the exception of the amount required to give the lands known as the Coos Bay Wagon Road and Oregon and California railroad lands the same protection from fire which is given adjacent national forest or privately owned lands protected by associations of private owners. Otherwise administrative restrictions placed upon the use of the appropriation by the Forest Service provide that expenditures shall not be made from it until forest fires have actually started. An exception is made to this rule, however, when fire conditions become so critical that the regular protective organization which is financed from "Protection and Administration, National Forests," is unable to cope with the situation and when, therefore, the temporary employment of additional guards will reduce expenditures for fire fighting.

Expenditures are made for the employment of fire fighters and their transportation, equipment needed on going fires when not available in stocks of equipment previously purchased from the Protection and Administration appropriation or in connection with fires of previous years. The appropriation is used for travel expenses of forest guards when going to or returning from fires and for the travel expenses of regular employees of the Service when the travel performed extends beyond the boundaries of the units to which they are regularly assigned or when the activities to which men are assigned do not include fire fighting.

The amount appropriated ($100,000) is nominal because it is impossible to predict in advance what the expenditures for such an uncertain activity may be. Supplemental estimates are submitted each year for the Deficiency Bill to cover expenditures in excess of the amount appropriated in the regular appropriation act.

(d) AERIAL FIRE CONTROL

Appropriation, 1932	$50,000
Appropriation, 1933	25,000
Appropriation, 1934	24,900
Estimated Obligations, 1934	12,450
Budget Estimate, 1935	- - - (a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, including administration in the District of Columbia and elsewhere, from the allotment which has been made for this work by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects.	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Aerial detection and reconnaissance of forest fires	$19,768	$12,450	$12,487	+ $37	- - -
Unobligated:					
Salary reduction	424	49	- - -	- - -	- - -
Working funds reduction	4808	12,401	- - -	- - -	- - -
Deduction on account of Public Works Allotment of	- - -	- - -	-12,487	- - -	- - -
Total Appropriation	25,000	24,900	- - -	-24,900 (1)	

(1) This reduction of $24,900 below the appropriation for 1934 consists of:

Impoundments of 6-2/3% of 15% pay cut	- $ 49
Curtailments in 1934 working funds	- 12,401
Budget provision for financing from Public Works Allotment in 1935...	- 12,487
5% salary restoration	- 37
	- 24,900

Work Done Under This Appropriation

This appropriation is used to operate aircraft in California, Oregon, Washington, Idaho, Montana, Michigan, Minnesota, and Arkansas in forest fire protection work. Beginning with the fiscal year 1929 this activity was carried on by contracting with commercial flyers instead of in cooperation with the War Department. The Forest Service has used aircraft in protection work for fourteen seasons. It was at first believed air patrol would afford quicker detection of fires than could be secured by lookout men on towers and mountain peaks. Experience has disproved this as a general proposition. Nor is it surprising that relatively few reports of fires have come from the aircraft, since any one locality is under observation only a short time during the twenty-four hours even if two or three patrols are made daily. Continuous observation of the terrain, such as lookout men on towers and mountain peaks have if intervening topography does not cut off a great part of their view, is essential to effective fire control.

The use of airplanes after lightning storms to search out smoldering fires which might be hidden from ground lookouts by intervening ridges has as yet given disappointing results but the possibilities of this use of aircraft have not been exhausted.

(e) Classification of Lands

Appropriation, 1932	$58,980
Appropriation, 1933	52,770
Appropriation, 1934	47,250
Estimated Obligations, 1934	30,664
Budget Estimate, 1935.	30,910
Increase, Budget 1935, compared with Estimated Obligations, 1934	246

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary restoration	Increase or Decrease Working Funds
Obligated:					
Classification of National Forest lands, location survey and appraisal of lands to be acquired by exchange and entry of forest homesteads	$40,109	$30,664	$32,082	+ $1,418	- - -
Unobligated:					
Salary Reduction	3,546	1,891	- - -	- - -	- - -
Working funds reduction....	9,115	14,695	- - -	- - -	- - -
Deduct on accout of Public Works allotment of.....	- - -	- - -	- 1,172	- - -	- - -
Total appropriation.....	52,770	47,250	30,910	- 16,340 (1)	

(1) This reduction of $16,340 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	- $1,891
Curtailments in 1934 working funds.....	- 14,695
Budget provisions for financing from Public Works allotment in 1935.....	- 1,172
5% salary restoration	+ 1,418
	-$16,340

Work Done Under This Appropriation

The classification of national forest lands under the provisions of the acts of June 11, 1906 (34 Stat. 233), and of August 10, 1912 (27 Stat., 287), now a minor activity but subject to possible revival; (2) the examination, cruise, appraisal, survey, etc., of private lands within the national forests offered in exchange under the Act of March 20, 1922 (42 Stat. 465), and the many other acts amendatory thereof or supplemental thereto, and of the national forest lands or stumpage selected in exchange therefor, and (3) the metes-and-bounds surveys of areas listed for entry under the Forest Homestead Act of June 11, 1906, and acts amendatory thereof.

Exclusive of the eastern Regions where lands are being purchased under the Weeks and Clarke-McNary Laws, there are within the National Forests almost 18,000,000 acres of State and Private lands of which approximately two-thirds ultimately should be acquired through exchange or donation. Adjacent to National Forest boundaries are other similar lands which should be under forest administration aggregating more than 5,000,000 acres. In their present ownerships and condition these lands greatly complicate and increase the cost of protecting and managing the National Forests. The laws under which land exchanges are made prescribe equality of value, not of area, hence it is necessary to examine, cruise and appraise both the offered private lands and the National Forest lands and/or stumpage desired in exchange therefor. As the data secured are exclusively for the use of the United States, the entire cost of obtaining such data must be borne by the Federal Government. Due to the present economic situation, lands are being offered at values greatly below those hitherto prevailing and it is desirable to conduct the land exchange work to the fullest degree allowable under existing financial limitations.

There are now fifty-six Acts of Congress which in either limited or general degree authorize exchanges of national forest land and/or stumpage for privately-owned lands chiefly valuable for national forest purposes. Under these acts, up to June 30, 1933, 970 exchanges have been consummated, through which the United States secured title to 1,409,973 acres valued at $5,589,932 and granted in exchange therefor 443,406 acres valued at $2,022,456 and 997,175 M.B.F. of stumpage valued at $2,788,911. During the fiscal year 1933, the number of exchanges consummated was 82, the area of offered land 95,480 acres valued at $278,190, the selected land 20,657 acres valued at $70,903, the volume of selected stumpage 61,435 M.B.F. valued at $157,448.

(f) Sanitation and Fire Prevention

Appropriation, 1932	$ 67,000
Appropriation, 1933	67,000
Appropriation, 1934	65,000
Estimated Obligations, 1934	19,452
Budget Estimate, 1935	--- (a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, including administration in the District of Columbia and elsewhere, from the allotment which has been made for this work by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Construction and maintenance of sanitary facilities and fire prevention on public camp grounds	$ 55,377	$ 19,452	$ 19,752	+ $ 300	---
Unobligated:					
Salary reduction	1,843	400	---	---	---
Working funds reduction	9,730	45,148	---	---	---
Deduct on account of Public Works Allotment of	---	---	- 19,752	---	---
Total appropriation	67,000	65,000	---	- 65,000 (1)	

(1) This reduction of $65,000 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 400
Curtailments in 1934 working funds	- 45,148
Budget provision for financing from public Works allotment in 1935	- 19,752
5% salary restoration	+ 300
	- 65,000

Work Done Under this Appropriation

This appropriation is used for the purpose of clearing or otherwise preparing areas required as public camp grounds, and to install thereon simple water, sanitary and fire control facilities with a view (a) of concentrating campers upon areas of low sanitary and fire hazard, (b) preventing the occurrence of unsanitary conditions and (3) minimizing risk of fire damage to national forest timber. Appropriation is prorated between the nine national forest regions in the same proportion as the estimated cost of the regional program bears to total cost. Appropriation expended exclusively for materials and labor, no part being used for salaries or overhead.

During calendar year 1932, the number of people who used the national forests for recreational purposes was estimated to be 35,718,434, e.g., Special Use permittees and guests, 580,182; hotel and resort guests, 1,138,634; campers, 2,178,231; picnickers, 4,011,646; motorists, horsemen, hikers, etc., who toured forests primarily to enjoy scenery, 6,407,218; unclassified, 37,150; and transient motorists, 21,415,463. The total is eleven times as great as in 1917 when the first systematic estimates were made. These visitors to the National Forests come from all the States and Territories of the Nation. In addition to the benefits which they derive from such use of the public properties, is the advantage to scores of small isolated communities through the markets for local labor and supplies thus created, and to remote manufacturers of outdoor goods and other equipment needed to supply the visitors while in the Forests.

Such use does, of course, create hazards to public property and health. Such hazards can effectively be minimized or eliminated by provision of adequate camp grounds affording simple facilities for the control of fire and for good sanitation. The chief purpose of the camp grounds is a protective one; the concentration of risks upon areas where they can be controlled or guarded against. The protective value of camp grounds has repeatedly been demonstrated in the experience of not only the Forest Service but of other protective agencies. To provide these people adequate camping facilities, which will minimize hazards to public health and fire risks, about 2,000 areas have been recognized and designated as public camp grounds. Upon 1,800 of these camp grounds some facilities have been established, principally toilets, garbage pits, sources of water supply, fire places, etc. Public interest demands a rapid rate of progress in the equipment of these camp grounds. While primarily important as safeguards to public health and property they also secure greater realization of the public services and values of the national forests and stimulate the commercial development of the regions of which they are parts.

(g) Planting on the National Forests

Appropriation, 1932	$250,000
Appropriation, 1933	154,200
Appropriation, 1934	214,070
Estimated Obligations, 1934	147,070
Budget Estimate, 1935	--- (a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, including administration in the District of Columbia and elsewhere, from the allotment which has been made for this work by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Reforestation by planting of National Forest areas and investigations of planting and nursery problems.....	$ 140,411	$ 147,070	$ 152,798	+ $ 5,728	---
Unobligated:					
Salary reduction	12,030	7,636	---	---	---
Working funds reduction	1,759	59,364	---	---	---
Deduct on account of Public Works Allotment of..	---	---	-152,798	---	---
Total appropriations.....	154,200	214,070	---	- 214,070 (1)	

(1) This reduction of $214,070 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$7,636
Curtailments in 1934 working funds	-59,364
Budget provision for financing from Public Works allotment in 1935	-152,798
5% salary restoration	+ 5,728
	-214,070

Work Done Under This Appropriation

This appropriation is used for the maintenance and operation of nurseries for the production of planting stock and for actual field planting of trees. In fiscal year 1934, the appropriation will have been used almost wholly for nursery work, and 60,000 to 75,000 acres will have been planted by men from the Civilian Conservation Corps or by crews hired under allotments from the Public Works Administration. Meanwhile the area of National Forest land needing planting has been increased by large purchases of lands east of the Great Plains and as the result of donations and exchanges in the West. The total area in now in need of planting is at least 2,500,000 acres, about equally divided between the East, including the Lake States, and the West.

It requires from two to five years to grow trees in a nursery from seed to proper planting size. Continuity of nursery operations is essential for a continuation of field planting. Sudden contractions of the activity necessitate the loss of expenditures already made in anticipation of ability to plant trees in future years. The work must be planned years ahead of the actual planting.

Planting on the national forests is resorted to only where it is not possible to obtain good stands naturally. Where fires have repeatedly burned over areas there is nothing left to furnish seed, and as a result such areas grow up slowly to a tangle of weeds, brush and light-seeded tree species of low or no commercial value. Such areas are planted to make them productive promptly. In some cases open areas need planting in order to stop erosion or to improve conditions of streamflow as well as for the production of wood materials of value.

(h) Reconnaissance

Appropriation, 1932	$ 131,260
Appropriation, 1933	77,860
Appropriation, 1934	68,410
Estimated Obligations, 1934	32,974
Budget Estimate, 1935	--- (a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, including administration in the District of Columbia and elsewhere, from the allotment which has been made for this work by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Timber survey.....	$ 40,184	$ 13,324	$ 16,374	+ $ 704	+$ 2,346
Range reconnaissance...	26,790	19,650	18,083	+ 779	- 2,346
Total	66,974	32,974	34,457	+ 1,483	---
Unobligated:					
Salary reduction.....	6,136	1,978	---	---	---
Working funds reduction	4,750	33,458	---	---	---
Deduct on account of Public Works Allotment of..	---	---	- 34,457	---	---
Total appropriation	77,860	68,410	---	- 68,410 (1)	

(1) This reduction of $68,410 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	-$1,978
Curtailments in 1934 working funds	-33,458
Budget provision for financing from Public Works allotment in 1935 (Timber surveys).....	-34,457
5% salary restoration	+ 1,483
	-$68,410

Work Done Under This Appropriation

This appropriation is used for cruising timber on the National Forests in preparation for sale and as the foundation for plans of management of the timber and grazing resources.

Timber Surveys are to determine the kinds, amount and condition of timber on specific areas. On areas from which sales are to be made promptly, data on these matters is necessary for appraisal and for the determination of logging and cutting plans. For other areas, an inventory on a somewhat less intensive basis is an essential for a proper plan for obtaining sustained yield and good long-time management.

Range surveys are essentially invoices of the location and distribution of forage resources, of the problems connected with their use, and the needs in the way of proper administration of the range. Systematic accurate information of this character which will serve adequatly as the basiseof administrative plans is of increasing importance as the use of the range becomes more and more involved with recreational development, wild-life needs, protection of watersheds, correction of erosion, etc. To date somewhat less than one-third of the forest range has been covered by surveys.

(i) Improvement of the National Forests

Appropriation, 1932	$2,359,200
Appropriation, 1933	1,019,640
Appropriation, 1934	987,034
Estimated Obligations, 1934	137,492
Budget Estimate, 1935	--- (a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, from the allotments which have been made for improvements on the National Forests by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Protection improvements	$ 501,441	$ 74,000	$ 75,989	+ $2,505	-$ 516(2)
Southern California improvements	85,000	12,700	11,914	+ 393	-1,179(2)
Range improvements	95,000	19,700	13,482	+ 609	-1,827(2)
Administrative improvements	185,000	31,092	35,794	+ 1,130	+3,522(2)
Total	866,441	137,492	142,179	+ 4,687	- - -
Unobligated:					
Salary reduction	34,359	6,250	---	---	---
Working funds reduction	118,840	843,342	---	---	---
Deduct on account of Public Works Allotment of	---	---	- 142,179	---	---
Total appropriation	1,019,640	987,084	---	-	987,084(1)

(1) This reduction of $987,084 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut		- $ 6,250
Curtailments in 1934 working funds		- 843,342
Budget provision for financing from Public Works allotment in 1935:		
Protection Improvements	$ 75,989	
South California Improvements	11,914	
Range Improvements	13,482	
Administration Improvements	35,794	- 142,179
5% salary restoration		+ 4,687
		- $987,084

(2) The increases and decreases indicated under "Working Funds" by projects are due to a consideration of the 5% salary restoration for the total appropriation, which when applied by projects, results in minor increases and decreases in working funds, which have no effect on the total working funds available.

Work Done Under This Appropriation

At the present time this appropriation is used for the maintenance of improvements needed for the administration and protection of the National Forests, except camp ground improvements. There is a special appropriation for the latter class of improvements. There is also a separate appropriation for forest roads and trails, a part of which is used for the construction and maintenance of roads and trails of the same general class as those constructed under this item, when funds are provided therefor. The principal classes of improvements maintained are telephone lines, lookout structures, firebreaks, roads, trails, barns, fences, dwellings and other buildings.

Limited amounts are used for the special protective improvements on the Angeles, Cleveland, Santa Barbara and San Bernardino National Forests in Southern California and for the construction and maintenance of boundary and range division fences and other improvements necessary for the control of stock on the grazing ranges on the National Forests.

(j) Emergency Construction (Act July 21, 1932)

Appropriation, 1932	---
Appropriation, 1933	$5,000,000
Appropriation, 1934	---

PROJECT STATEMENT

Projects	1933 (Estimated)	1934 (Estimated)	1935 (Estimated)
Obligated:			
Construction of improvements	$3,770,558	---	---
Maintenance of improvements	422,734	---	---
Total	4,193,292	---	---
Unobligated:			
Salary reduction	162,944	---	---
Working funds reduction	593,764	---	---
Add: Transfer of funds to Protection and Asministration of National Forests	50,000	---	---
Total appropriation	$5,000,000	---	---

Obligations under this fund were discontinued at the close of the Fiscal Year 1933.

FOREST RESEARCH

General Statement - Forest Research

The appropriations recommended for research in forest management, range investigations, forest products, forest survey, and forest economics for the fiscal year 1935, fall under the provisions and the authorizations of the Forest Research Act approved May 22, 1928 (45 Stat., 699-702).

Except for the forest survey item, Section 9, which provides a maximum as well as an annual authorization, the Act of May 22, 1928, sets up a 10-year financial program which began with the fiscal year 1929 and ends with 1938. The year 1935 will be the seventh year of this program.

Each Section of the Act provides for work on an important phase of the forestry problem, including Forest management, on how to grow timber crops and protect them against fire; range investigations, on the production and utilization of forest ranges, an important by-product, and also on other ranges; forest products investigations, on the properties, manufacture, and utilization of forest products primarily as an aid to forest land use; the forest survey and other economic investigations, on the formulation of the economic basis for sound forest policies.

All of the following research items therefore constitute parts of a comprehensive national and regional attack, through survey, investigation and experimentation, on the forest problems of the United States.

(k) Research in Forest Management

Appropriation, 1932	$ 562,000
Appropriation, 1933	534,280
Appropriation, 1934	492,671
Estimated Obligations, 1934	378,468
Budget Estimate, 1935	392,810
Increase, Budget 1935, compared with Estimated Obligations, 1934	14,342

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Forest Experiment Stations, as follows:					
Allegheny.....	$26,178	$ 20,184	$ 21,263	+ $ 1,045	+ $ 34
Appalachian.....	41,523	30,997	32,675	+ 1,623	+ 55
California.....	56,388	41,809	43,672	+ 1,805	+ 58
Central States.....	27,787	21,325	22,398	+ 1,040	+ 33
Intermountain.....	9,020	6,414	6,745	+ 323	+ 8
Rocky Mountain.....	4,836	3,707	- - -	- - -	- 3,707
Lake States.....	70,504	51,694	53,780	+ 2,427	- 341
Northeastern.....	44,019	33,647	35,359	+ 1,656	+ 56
Northern Rocky Mountain	32,990	24,367	25,713	+ 1,306	+ 40
Pacific Northwest.....	33,741	24,314	24,599	+ 1,020	- 735
Southern.....	72,914	56,336	59,227	+ 2,801	+ 90
Southwestern.....	11,618	8,880	9,618	+ 422	+ 316
Washington, D. C.....	61,256	54,794	57,761	+ 2,874	+ 93
Total.....	492,774	378,468	392,810	+ 18,342	- 4,000 (2)
Unobligated:					
Salary Reduction.....	41,032	24,456	- - -	- - -	- - -
Working Funds reduction.	9,474	89,747	- - -	- - -	- - -
Deduct transfer from Protection & Administration National Forests.....	- 9,000	- - -	- - -	- - -	- - -
Total Appropriation.....	534,280	492,671	392,810	- 99,861 (1)	

(1) This reduction of $99,861 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	- $24,456
Curtailments in 1934 working funds.....	- 89,747
Further reduction in working funds for 1935 . . (and for research in the Rocky Mountain Region).....	- 4,000
5% salary restoration.....	+ 18,342
	- 99,861

(2) The increases and decreases indicated under "working funds" by projects are due to minor adjustments under the 5 percent salary restoration for the total appropriation, which when applied by projects, results in nominal increases and decreases in working funds which have no effect on the total working funds available, except in the case of the decrease of $3,707 which involves the elimination of Forest Management Research in the Rocky Mountain Region.

Work Done Under this Appropriation

This appropriation provides for investigations on how to grow timber crops and to protect them against fire as outlined in Sections 1 and 2 of the Forest Research Act approved May 22, 1928 (45 Stat., 699-702). These forest management investigations are conducted primarily at a series of regional forest experiment stations, one for each of the major forest regions of the United States.

Forest-management research is directed toward determining what methods of cutting and logging will encourage rapid reforestation, with desirable species, of forest lands in the United States, now being cut over at a rate of about 8,000,000 acres per year. It is directed also toward determining what methods of managing the young stands will bring about most rapid growth of the best trees. It aims to (1) determine the best methods for growing forest trees of many species, which are now being produced in some 100 nurseries at a rate of more than 150,000,000 a year, and for planting them on thousands of acres of denuded, idle, and eroded land in all parts of the country; (2) develop cultural methods through which the inferior and ragged forest and brush cover now existing on large areas of fire-swept and mismanaged lands may be converted into fast-growing forests of desirable species; (3) determine the growth rates of the many and complex forest types of the United States, so as to enable forest owners to estimate what quantities of wood may justifiably be removed from their forests annually; (4) provide data needed as a basis for determining how many acres of forest will be needed for perpetual operation of a mill, and thus to assist in stabilizing wood-manufacturing industries and maintaining economic and social forest values.

Research of this class includes studies of how best to prevent and control forest fire, which now causes an annual loss in the United States of some $100,000,000. Current fire studies deal with methods of organizing fire-control forces, with methods of detecting fires, and with methods of accelerating attack on fires. It includes also naval-stores investigations, the purpose

of which is to determine how continuous crops of high-grade resin can be produced from young pine forests with minimum damage to the trees.

Among the results of forest-management investigations during 1933 are the following: Methods have been worked out for obtaining uniform germination of red cedar seed in a few weeks instead of over a period of 2 to 5 years as under any method previously known. Seed of longleaf pine and slash pine, produced at irregular intervals of from 2 to 7 years, has been difficult to store without heavy losses; by cold-storage methods now developed, it can be held for several years with but slight loss in germinating values. Quick and cheap methods have been developed for liberating black locust seed from the pods. Many of the losses in large plantations in the Northeast have been found to be due to planting too deep and to stripping tender rootlets and root hairs from the larger roots in removing the trees from the nursery. The seed stored in the heavy litter and duff of the mature forest in the western white pine region of north Idaho can germinate in the proportion of about 40 percent if stored for a single year, 23 percent if stored for two years, and 1 percent or less if stored for 3 years. In the Central States, black walnut cannot be successfully planted on areas where the subsoil is tight, on poorly drained areas, or on black clay loam heavily infiltrated with organic matter, but such plantations make good growth on deep or on brown silt loam. In the redwood region, the logging and slash-burning methods now practiced preclude satisfactory reforestation even by planting, although under improved conditions of logging and fire protection the leaving of seed trees generally results in adequate reforestation. The failure of Douglas fir reproduction to establish itself naturally on cut-over and heavily burned lands has been found to be due to high surface-soil temperatures. This points to the necessity of planting such lands, with sturdy stock.

In dense young stands of slash pine, thinning is necessary to prevent stagnation. Instead of cutting all the unwanted trees in the stand, it has been found cheaper and more satisfactory to select the trees to be left and remove only the trees immediately surrounding them. The selected trees, because of their rapid growth after release, soon suppress the remaining unwanted trees.

Although normal yield tables showing the expected growth of even-aged stands have been prepared for most of the important tree species, heretofore no satisfactory method has been evolved for predicting the growth of uneven-aged stands. A new method, applying to ponderosa pine, makes it possible to predict closely the growth of uneven-aged stands such as result from selective cutting.

Partial drainage of "ponds" or low and somewhat swampy areas, in the Southeast has increased the diameter growth of slash pine by about half an inch a year. Trees in such situations yield large quantities of the resin from which naval stores are derived. This partial draining results also in quick regeneration of forest cover on land previously too wet for quick natural reforestation.

Forest fire research resulted in the devising of methods of locating areas inadequately commanded by look-out stations and ascertaining the relative value of alternative look-out points. Observations as to the visibility of 450 natural targets on several national forests in California, repeated at 15-minute intervals throughout each day of the fire season, disproved the

former belief that forest fires can be dependably detected from a look-out over a radius of 15 miles, and established the fact that smoke visibility depends more on the character of the background than upon distance. A method was worked out for rating fire hazard in the Northern Rocky Mountain region, and on the basis of analysis of thousands of past fires calculations were made as to the speed of attack necessary for various degrees of hazard in order to hold fires to small areas. It was found possible through relocation of look-outs and firemen, without any addition of men or of roads or trails, to increase the efficiency of the first line of defense on a given forest by from 3 to 8 percent. A "fire-danger meter" was developed for this region, which gives an integrated rating of the effect of fuel inflammability, air humidity, wind velocity, visibility, season of year, and other factors involved, and thus makes possible quick determination of the probable rate of spread of fire and the administrative action needed to cope with fire danger.

(1) Range Investigations

Appropriation, 1932	$130,000
Appropriation, 1933	123,030
Appropriation, 1934	100,000
Estimated Obligations, 1934	76,820
Budget Estimate, 1935	81,025
Increase, Budget 1935, compared with Estimated Obligations, 1934.	4,205

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
California Forest and Range Experiment Station	$16,596	$ 11,293	$ 11,857	+ $ 612	- $ 48 (2)
Intermountain Forest and Range Experiment Station	30,138	19,666	20,718	+ 986	+ 66 (2)
North Rocky Mountain Forest and Range Experiment Station	9,073	5,531	5,829	+ 283	+ 15 (2)
Southwestern Forest and Range Experiment Station	36,153	25,043	26,365	+ 1,417	- 95 (2)
Washington, D. C.	19,198	15,287	16,256	+ 907	+ 62 (2)
Total	111,158	76,820	81,025	+ 4,205	- - -
Unobligated:					
Salary reduction	10,388	5,606	- - -	- - -	- - -
Working funds reduction.	1,484	17,574	- - -	- - -	- - -
Total Appropriation	123,030	100,000	81,025	- 18,975 (1)	

(1) This reduction of $18,975 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 5,606
Curtailments in 1934 working funds	- 17,574
5% salary restoration.	+ 4,205
	- 18,975

(2) The increases and decreases indicated under "working funds" by projects are due to consideration of the 5% salary restoration for the total appropriation, which when applied by projects, results in minor increases and decreases in working funds which have no effect on the total working funds available.

Work Done Under this Appropriation

The object of range investigations is to determine how to produce and utilize forage crops on forest and range lands most effectively. These ranges, totaling about 335,000,000 acres of grazed forest and woodland and nearly 495,000,000 acres of untimbered range lands, constitute a very important source of feed for the domestic livestock industry, particularly in the West, from which the Nation obtains a high percentage of its wool, lambs, and beef. The application of research results has already brought improved range conditions on national forests, more economical production, and savings of several million dollars to the industry annually. Thus, the work has an important bearing on the stability and welfare of the range livestock industry and conservation of the range resources. It is furnishing the basic information necessary for the range improvement, revegetation for erosion control, and other range land phases of the work of the C.C.C. and the Public and Civil Works relief projects. It is also contributing directly and in important ways to national forest administration and the recovery of the range livestock industry, and it will contribute to the future administration of the public domain.

The work includes such phases as determining ways and means for restoring and improving depleted ranges by natural revegetation and by artificial reseeding, values of range plants for grazing and how to increase and maintain the more valuable species, carrying capacity of different kinds of range for different classes of livestock, the best and most profitable methods of handling livestock on ranges, adjustments in management to insure best range use without interfering with reforestation, and methods for controlling poisonous range plants on the range, etc. The following examples illustrate the character of the results which are being obtained.

Studies of range conditions on the foothill and desert ranges of the Intermountain region clearly indicate why social and economic conditions are so unsatisfactory for that part of the industry using these ranges. In the sage brush-wheat-grass foothills, grazing capacity on most of the land has declined almost 70 per cent as compared to check areas largely protected from grazing and now in good condition. Much of this decline has been in palatable grasses. In the desert shrub types of western Utah that are used for winter grazing the decline in grazing capacity has reached an average of 58 per cent. White sage, which is an excellent forage, has been replaced over extensive areas by other brush and by weed species of low forage value. Less intensive checks of conditions in the winter ranges of eastern Utah, in the Snake River

Plains of southern Idaho, and in northern and central Nevada show declines in grazing capacity of from 50 to 80 per cent. The greater part of these declines have occurred in palatable perennial grasses which have been replaced by annual plants and weeds, both of much lower value than the grasses. Malnutrition from inadequate feed increases death losses, decreases calf and lamb crops and necessitates increased costs for supplemental feed. Livestock production on these depleted ranges accordingly has become precarious.

The study of grazing capacity in the Northern Great Plains area of Montana has brought out that at least 50 acres of this type of range in reasonably good condition are required to support a cow through the year. Three-year-old cows with ample range forage weighed in early November an average of 979 pounds, or 91 pounds more than those that had been on heavily grazed range the previous 18 months. Calves from the cows having ample range feed averaged at weaning time, 24 pounds more per head than those from cows on heavily grazed range. The value of the greater weight of cattle on the more conservatively grazed range was more than sufficient to offset the increased rental cost of the additional area of range.

Further analysis of the influences of climate and grazing upon black grama grass ranges in southern New Mexico indicate that it is possible to predict, from the rainfall of 1 year, whether in the following year there will be a greater stand available, or less. If the rainfall is above the normal, the stand of black grama will increase in the following year, and if it is below normal will decrease, regardless of the following summer's rainfall. The rainfall of each summer, however, largely determines the height growth of black grama on the existing stand. These findings are of great importance in planning stocking and sales of livestock to off-set the influence of drought - the arch enemy of profitable livestock production on semi-desert ranges of the Southwest.

(m) Forest Products Investigations

Appropriation, 1932	$641,300
Appropriation, 1933	613,640
Appropriation, 1934	566,791
Estimated Obligations, 1934	435,407
Budget Estimate, 1935	459,725
Increase, Budget 1935, compared with Estimated Obligations, 1934.	24,318

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
California Forest and Range Experiment Station.....	$15,887	$ 12,523	$ 13,292	+ $ 700	+$ 69 (2)
Northern Rocky Mountain Forest and Range Experiment Station..	12,837	10,082	10,626	+ 479	+ 65 (2)
Pacific Northwest Forest Experiment Station.....	14,680	12,563	13,154	+ 531	+ 10 (2)
Forest Products Laboratory.....	466,732	361,096	381,083	+20,350	- 363 (2)
Washington, D. C.....	44,039	39,143	41,570	+ 2,208	+ 219 (2)
Total.....	554,175	435,407	459,725	+ 24,318	- - -
Unobligated:					
Salary reduction.....	55,914	32,424	- - -	- - -	- - -
Working funds reduction	3,551	98,960	- - -	- - -	- - -
Total Appropriation...	613,640	566,791	459,725	- 107,066 (1)	

(1) This reduction of $107,066 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $32,424
Curtailments in 1934 working funds	- 98,960
5% salary restoration.	+ 24,318
	- 107,066

(2) The increases and decreases indicated under "working funds" by projects are due to consideration of the 5% salary restoration for the total appropriation which, when applied by projects, results in minor increases and decreases in working funds which have no effect on the total working funds available.

Work Done Under this Appropriation

The general aim of forest products research is to aid in making timber growing more profitable through more efficient utilization, and to aid in providing the public most economically with needed forest products of form and quality which will render the most satisfactory and efficient service and at costs and prices which can successfully compete with an ever increasing number of competitive materials. It is through the conversion of trees into such salable commodities that we secure the tangible economic benefits of labor employment, taxes and returns on our capital investments in our vast forest land resources. The long range success of the President's great forestry program is largely dependent upon a permanent balance between sustained yield forest supply and sustained outlets and markets for forest products.

The current forest products research is aimed at the above objectives, and is concentrated on problems of reducing wastes, lowering costs, improving quality and serviceability, and developing new products. It affects the forest values on over 127,000,000 acres of farm woodlands, and of more than 550,000,000,000 board feet of Federal stumpage, which as markets to up or down will change in value by $55,000,000 for every ten cents per thousand changes in stumpage values. It will materially affect the extent of sustained yield forest practice by private owners.

The work is largely centered at the Forest Products Laboratory at Madison, Wisconsin, with some associated work at Forest Experiment Stations and at Washington, D. C. At the Laboratory a trained and integrated staff has been developed over the past 24 years to attack the diversified problems in an organized and well developed plan. The Laboratory has become the outstanding organization of its kind in the world. Conservative estimates place the annual service to users and producers of lumber through application of its findings at a figure at least 20 times its annual cost of operation.

The forest industries have been especially hard hit by the depression on account of the collapse of the building market where more than 60 per cent of the lumber produced is used. Very serious losses of capital and wages have resulted in the woods, at the mill, and among the wood fabricating industries. Many mills and woodworking plants have shut down, and their employees are without work. The research program at the Forest Products Laboratory is designed to meet the problems of this situation especially by contributing to the recovery of markets for forest products. It has the same purpose in the recovery of the forest industries as the NRA and also contributes directly to many of the code requirements in the handling of forest products.

The current emergency program includes investigations to bring about radical improvements in the engineering of wood construction so that simple and inexpensive but thoroughly satisfactory wooden houses can be built. Such improvements would mean more desirable homes to the consumer and new life to the building market. The program includes fire retardant investigations to find a cheap treatment that will made wood fire resistant and so open up a potential market for billions of feet that have been lost on account of the fire hazard of untreated lumber. Antishrink and preservative treatments are part of the emergency program. Here again treatments that would successfully reduce shrinkage and swelling would give a tremendous impetus to wood utilization as would also the development of a colorless, odorless chemical capable

of making wood resistant to decay and insect attack. The strength of wood fastenings - nails and bolts - has been worked out as one important key to the mass production of material that can be erected in units. Search is under way to develop better methods of painting so that repainting will not be necessary at such frequent intervals. In the field of pulp and paper research marked progress has been made, especially in the development of a satisfactory process for making strong white papers from the southern and western woods. During recent years we have been importing $250,000,000 worth of paper. Growing our own supplies of pulpwood means help to timberland owners, particularly those who are trying to grow timber crops.

The following examples illustrate the kind of results which are being obtained:-

Despite the relative economy of the material itself, wooden houses cost too much. The answer is production of wood units that can be assembled at minimum expense into attractive and economical structures. The Forest Products Laboratory is attacking this and other construction problems from a variety of angles. Under development are a new type of plywood floor unit to give a greater ratio of useful load to dead weight than any now in service; wall and roof panels of high efficiency, embodying the use of plywood with other common structural elements, and effective means of bracing and connecting the units; built-up wooden columns and glued laminated arches and beams permitting the greater use of cheap smallsized material to replace large structural sizes that are more costly; and improvements in wood joints and fastenings for all sizes and loadings. The results are leading to increased efficiency of built-up units and point the way to their use not only in housing but in new fields of large construction such as railway stations, halls, hangars, radio towers, transmission lines, bridges, and the like, which have been such a marked feature of recent European engineering developments.

Progress to date in the pulp and paper field has included the development of methods for pulping and bleaching southern yellow pines which permits, at least technically, their use in strong white papers, and in book, bond, newsprint, and similar grades. These methods have been applied to four of the principal pine species and are now in process of adaptation to the remaining members of this group. The same line of attack is being successfully used on Douglas fir and the true firs. A semichemical pulping process returning high pulp yields has been perfected, especially adapted to hardwoods. Thirty thousand tons of chestnut semichemical board are now being produced commercially per annum. The use of the acid sulphite process has been adapted to resinous species, through the use of soluble bases replacing lime, and recovery methods are in process of development to eliminate the waste liquors as a source of stream pollution. Recently methods and appliances have been designed which permit extremely accurate control of the paper machine operation and the measurement of paper properties which must be steadily improved to meet the competition of imported products.

By cost studies in the woods and at mills the sizes of logs that yield a profit have been determined in several typical regions, showing that smaller trees which do not pay their way should be left growing to provide a basis for future crops. In the southern pine region alone it has been found that 6 to 10 per cent of the present lumber cut is from trees which net a loss of $2.50 per thousand board feet. Studies in California show that it does not pay

to saw lumber from ponderosa pine logs 14 inches and under in diameter as the costs are greater than the value of the lumber. Similarly in Lake States hardwoods and hemlock lower cutting limits of 12 to 13 inches have been determined and in Appalachian hardwoods a limit of 14 inches diameter. Findings such as these have been applied in the operations of a number of companies and to timber sales on the National Forests to distinct advantage.

Based on a nation-wide survey of the moisture content of wood in dwellings, regional averages of the moisture in various wooden house parts from cellar to attic have been determined. These regional averages indicate the proper moisture content of wood to be used in interior construction in various parts of the country and should aid materially in reducing the troubles experienced in shrinking, swelling, and opening of joints of wood in service, which are due in part to using the lumber at a moisture content too high or too low for the humidity conditions of the particular locality. Such averages will also serve as a basis for proper moisture limits in the lumber code requirements.

An experimental portable dry kiln has been designed and tested with charges of southern pine. From the results of these runs it is probable that a practical kiln design can be developed for the use of small mill operators so that the large amount of lumber produced at these mills can be marketed in better and more salable condition. It was shown that by greater care in the adjustment of set works on the carriage of small sawmills the value of salable lumber can be increased by as much as $1.60 per thousand.

(n) Forest Survey

Appropriation, 1932	$200,000
Appropriation, 1933	170,280
Appropriation, 1934	160,067
Estimated Obligations, 1934	122,963
Budget Estimate, 1935	- - - (a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, including administration in the District of Columbia and elsewhere, from the allotment which has been made for this work by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
California Forest and Range Experiment Station.....	$ 6,821	$ 5,245	$ 5,464	+ $ 302	- $ 83
Lake States Forest Experiment Station.....	8,114	6,344	6,547	+ 337	- 134
Northern Rocky Mountain Forest and Range Experiment Station.....	13,630	10,435	10,887	+ 534	- 142
Pacific Northwest Forest Experiment Station	62,365	47,955	40,682	+ 1,608	- 8,881
Southern Forest Experiment Station.....	43,818	34,802	33,992	+ 1,629	- 439
Washington, D. C.....	21,639	18,122	13,971	+ 1,170	- 321
Total.....	156,387	122,963	118,543	+ 5,580	-10,000 (2)
Unobligated:					
Salary reduction.....	12,901	7,440	- - -	- - -	- - -
Working funds reduction	992	29,664	- - -	- - -	- - -
Deduct Public Works allotment of.....	- - -	- - -	-118,543	- - -	- - -
Total Appropriation.....	170,280	160,067	- - -	- 160,067 (1)	

(1) This reduction of $160,067 below the appropriation for 1934 consist of:

Impoundment of 6-2/3% of 15% pay cut	- $ 7,440
Curtailments in 1934 working funds.	- 29,664
Further reduction in working funds for 1935. . .	- 10,000
Budget provision for financing from Public Works allotment in 1935	- 118,543
5% salary restoration	+ 5,580
	- 160,067

(2) The decreases indicated under "working funds" by projects are due to consideration of the 5% salary restoration for the total appropriation, which when applied by projects, results in minor decreases by projects which have no effect on the total working funds available, except at the Pacific Northwest Forest Experiment Station, where there is a decrease of $8881 in working funds.

Work Done Under this Appropriation

The Forest Survey, at its inception, was recognized as one of the most fundamental, comprehensive, and valuable projects ever undertaken in the field of forestry. It is aimed directly at the major economic, public and industrial problems, involving the use of land for timber growing and other forest purposes, and the correlation of such use with agricultural use. In normal times the support of 8 million to 10 million persons -- wage earners and salaried employees and dependents -- is based on our forests. The 500 million acres of commercial forest land available for forest use, greater than all that in harvest crops, is now being enhanced by millions of acres which are being taken out of agriculture.

The severe economic and social distrubances of the past few years, and the problems faced in the prosecution of the Administration's emergency measures have greatly emphasised the vital importance of expanding and accelerating the Survey because in a large way it supplies the basis upon which a new structure of economically and socially efficient land use may be created. Still in its early stages, it has furnished, for the localities covered, information of the greatest value in the effectuation of the conservation provisions of the NRA forest products industries' codes, in planning the ECW, in formulating programs of public acquisition of land for forest purposes, and in other emergency undertakings. The Survey is being initiated in the Tennessee Valley at the urgent request of the Tennessee Valley Authority.

Specifically, the Survey involves an authentic and detailed investigation of: (1) the present and prospective wood requirements of the nation; (2) the drain upon the nation's forests through cutting and through loss by fire, insects, and disease; (3) current and potential growth; (4) existing resources by volume and area; and (5) the interpretation of these findings in their relation to each other and to other complex economic factors and trends as a solid foundation for sound forest land use planning nationally, regionally, and locally by public and private agencies.

Pacific Northwest

Office compilation is largely completed, reports are in preparation and will be well on towards completion during the fiscal year 1934 for the Douglas fir territory, (25,000,000 acres). This inventory phase has commenced in the pine region of eastern Oregon and Washington. Cooperation has been furnished by the lumber industry in the form of confidential timber cruisers, maps, etc., and by State and private agencies in funds and loan of personnel.

Although the reports have not yet been completed, the information for the Douglas fir territory has been put to diverse and important use by both

public and private agencies including the Army engineers, State Bureaus of Public Works, Washington State Canal Commission, Chambers of Commerce, County courts and other agencies, bankers, railroad officials, agricultural economists, and land and lumber companies. The data have been used in court in arbitrating tax appeals and in cases between the State and county. It is supplying the fundamental basis for working out plans for sustained yield on private lands as required by the lumber code.

Southern

The South contains nearly 40 per cent of the Nation's forest land, produces 1/3 of our softwood lumber, all our naval stores, and more hardwood lumber than any other region. The inventory has been completed and reports are in preparation for 12 million acres in Mississippi. Aided by emergency funds, work has commenced in the Naval Stores Belt where conditions are critical, and where this basis for sound plans of naval operation and forest land management will be especially valuable. The Lumber Code Authority and the lumber industry in general, the naval stores, pulp and paper, and the wood preservative industries, the railroad companies, and power companies are among the numerous agencies insistent upon the prosecution of this project.

Northern Rocky Mountain

Inventory work, initiated in 1931, has continued on a small scale. Because the region is practically the only source of supply of the highly useful western white pine and because of the critical fire protection problem, and other factors including tax delinquency, which make for uncertain tenure of ownership and unproductive management, the work is of present urgency. It will supply information needed in developing through consolidation and in other ways stronger management, sustained yield, and community and industrial stability.

Lake States

Facts obtained by the Survey and the State land economic studies are being used in zoning, setting up county forests, and land use planning in Wisconsin, all of which bear directly upon the solution of the submarginal farm land problem. The work has commenced in Minnesota where, with the aid of emergency funds, it is planned and urgently important that the 16 northern counties be completed during the next year and a half. It is vital to land use plans now in the making.

Since there are 56 million acres of forest land in the Lake States, plus millions of acres of submarginal farm lands potentially usable for forestry, the study is obviously of immediate importance from both the national and State standpoints. Until now the Federal government's part financially, has been a minority one, most of the cost being borne by the States.

California

Thus far, work has been entirely devoted to the preparation of vegetative cover type maps. Mapping has been completed on about 26 million acres and partially completed on 20 million more. The results have been

published, or are in process of publication, for eight quadrangles.

This information has been used in the formulation of fire protection plans involving Federal, State and private agencies, by the State Division of Parks in the selection of State Parks, by the Giannini Foundation and by other public and quasi-public agencies in land use planning, particularly for marginal and sub-marginal agricultural forest lands. They have been the basis for locating the Ponderosa Firebreak, an 850 mile line segregating forest from non-forest lands to obtain protection of high forest values.

Requirements Phase

Surveys of the lumber needed for the construction and maintenance of rural buildings have commenced in carefully selected sample counties in the East and South, typical of conditions for broad zones, as a basis for appraising this important element in the national wood requirements. A survey of the wood requirements of all of the fifty-odd classes of secondary wood-using industries for 1933 will be made at the urgent request of the Lumber Code Authority to aid in quota allocations.

(o) Forest Economics

Appropriation, 1932.....	$75,000
Appropriation, 1933.....	70,240
Appropriation, 1934.....	60,000
Estimated Obligations, 1934.....	46,092
Budget Estimate, 1935.....	48,493
Increase, Budget 1935, compared with estimated obligations, 1934.....	2,401

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Lake States Forest Experiment Station...	$ 6,236	$ 5,025	$ 5,275	+ $ 250	- - -
Pacific Northwest Forest Experiment Station.....	15,887	11,403	11,929	+ 526	- - -
Southern Forest Experiment Station...	26,241	17,825	18,759	+ 937	- 3 (2)
Washington, D. C.....	15,377	11,859	12,530	+ 688	+ 3 (2)
Total.....	63,741	46,092	48,493	+ 2,401	- - -
Unobligated:					
Salary reduction.....	5,548	3,201	- - -	- - -	- - -
Working funds reduction.....	951	10,707	- - -	- - -	- - -
Total appropriation....	70,240	60,000	48,493	- 11,507 (1)	

(1) This reduction of $11,507 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	- $3,201
Curtailments in 1934 working funds.....	- 10,707
5% salary restoration.....	+ 2,401
	- 11,507

(2) The increases and decreases indicated under "working funds" by projects are due to consideration of the 5% salary restoration for the total appropriation, which, when applied by projects, results in minor increases and decreases by projects which have no effect on the total working funds available.

Work Done Under This Appropriation

This appropriation includes work in the field of Forest Economics other than that which is specifically provided for elsewhere. This excludes work on the Forest Survey which is provided for under Section 9 of the McSweeney-McNary Act and Forest Insurance and Forest Taxation provided for for by the Clerke-McNary Act. Work under this appropriation involves the three major projects: (1) the Development of Private Forestry, (2) the Financial Aspects of Private Forestry Practice, and (3) the New Public Domain.

Development of Private Forestry

This is an investigation to ascertain the things which are impeding forestry practice on privately owned lands in the United States, to devise ways and means of overcoming these obstacles, and to formulate other means of stimulating private forestry which, for many years, has made scarcely discernable progress on the 4/5 of the nation's forestry area in private ownership. This project is of especially vital importance in formulating and applying the measures necessary to effectuate the conservation commitments of the NRA forest products industries' codes. The work is closely related to that described hereinafter under Financial Aspects of Private Forestry.

Under the direction of the Pacific Northwest Forest Experiment Station a thoroughgoing analysis of the cost of every step in logging from stump to pond and with almost every variety of machinery used in the Douglas fir region, has been made and published with the cooperation of the Charles Lathrop Pack Forestry Foundation and the West Coast Lumbermen's Association. The foregoing publication is the first of a series, the second of which, dealing constructively with the application of these far-reaching findings is now in preparation.

This and related studies are demonstrating the practicability of revolutionary changes in the traditional Douglas fir operating methods which will both facilitate keeping the forests continuously productive and will react to the financial advantage of the operator. This work is of outstanding importance because there exists in this great forest region the most destructive over-liquidation of private forests and over-production of lumber, without any plan for perpetuating the privately owned resources, and with a depressing effect on private forestry and forest industries throughout the United States.

Although still in its early stages, the spectacular success promised from this work indicates the importance of its continuation, and extension as funds permit, to other forest regions where corresponding possibilities for accomplishment exist.

The Washington, D. C. staff made a study of public regulation of private forest lands including the analysis of legal aspects, the varying experience of many foreign countries, and the practical advantages and disadvantages, which enabled the formulation of principles of public regulation

for American conditions. This has been valuable in formulating plans for public regulation of cutting under the NRA codes.

Financial Aspects of Private Forestry

This is the first comprehensive study designed to show how much it costs to grow forests and the returns which may be obtained by private owners, and under different sets of conditions and methods of treatment. It is being conducted by the Southern Forest Experiment Station.

Forest land constitutes 64 per cent of the land area of the South. This is nearly 40 per cent of the forest land of the United States. The South produces between 40 and 50 per cent of the total lumber cut of the nation and all of the naval stores. Not only is the South nationally important as a source of lumber, naval stores, and other forest products, but the forests products industries and activities are a very large factor in the economy of the region. The economic and social future of the South is dependent to a very large degree to the productivity of its forests.

The information being secured by this study is fundamental to the development of private forestry, to the coordination of forestry, agricultural and other major land uses, and to the correlation of public and private land ownership, all of which are of momentous immediate concern.

The first phase, consisting of studies of forest conditions, present practices, methods of utilization, costs and markets in carefully selected sample counties, is well on towards completion. Reports from six out of eleven counties have been issued. These bear especially upon farm woodlands.

The second phase, consisting of intensive studies of selected individual large private forest operating enterprises, has commenced. Two such "case" studies have been made. This work will be continued during 1935 and eventually the results of these and the county studies will be correlated and presented to show constructively the possibilities for forestry in both farm woodland and industrially owned lands, and to aid in classifying land as to its adaptability to forestry and other major uses, and as to private and public ownership.

It has already been found that forestry measures and conservative management would enable net annual returns per acre of $3.03 as contrasted with little or no returns under present practice for typical conditions in the naval stores belt; that, based on 1929 conditions, conservative management would have permitted net annual returns of $5.08 per acre as contrasted with $2.17 under heavy cutting and nothing under clear cutting in a typical short-leaf loblolly operation in Arkansas; and that in general there are large possibilities for financially profitable private forest land management in lieu of present destructive practices.

The work has received important cooperation from State Foresters, Extension Foresters, many county officials, and from private operators.

New Public Domain

This is an investigation of the basic causes of reversion to public ownership, usually through tax delinquency, of increasingly large areas of cutover forest lands; of the trends of reversion and the economic factors influencing them; and of the measures necessary to obtain sound economic use of such areas, either under restored private ownership or by public ownership and management. The study is aimed at the solution of a rapidly expanding problem of forest land abandonment which in several regions is causing severe economic and social disturbances, accelerated by the present economic depression, but of much longer standing. The study is obtaining information fundamentally necessary to the development of state and county land use policies and plans, to county zoning, to the conversion of land from agriculture to forest use, and to programs of public land acquisition.

The work is being conducted by the regional forest experiment stations in the Lake States, the Pacific Northwest, and the Southern regions -- in all of which the problem is of grave importance. Indications are that 21 million acres of forest land already are tax delinquent within the Lake States and that in 10 years half of the 56 million acres of forest land will pass into involuntary public ownership. The work completed for the 16 northern counties of Minnesota has been used in a State wide study of taxation and is aiding in the preparation of a comprehensive land use report by a special land use committee appointed by the Governor. Work similar to that in Northern Minnesota is being initiated in the northern peninsula of Michigan where the situation is equally bad. The Federal study is being conducted in cooperation with State agencies and supplements and strengthens the local effort.

In the South, the Southern Forest Experiment Station and the Arkansas Agricultural College have completed a study for five sample counties in Arkansas. The specific information thus obtained has enabled the application of remedial measures, some of which have been enacted into law. The work has lead to a proposed bill to empower the State Forestry Commission to acquire reverted public land, and through exchange, private lands for State forests and for other public purposes. This work in Arkansas and preliminary surveys elsewhere in the South have indicated the critical tax delinquency situation in most of the southern states. Studies along the lines of the Arkansas study will next be made in Mississippi, Florida, and Louisiana.

The Pacific Northwest Forest Experiment Station has completed the field work and 25 per cent of the office work in a survey of tax delinquency in the forested areas of the 18 Douglas fir counties. The study has revealed excessive land abandonment and tax delinquency, destruction of the tax base, critical break down in the public school system, disorganization of local government, default in public bond payments, and a great disturbance in the indistrial home life of the people. Many of the causes and some of the remedies for this distress have been determined. The results of the findings to date, though incomplete, have been in great demand by the Governor of Oregon, the two State Tax Commissions, by bankers, Chambers of Commerce, and county authorities, and a host of quasi-public and private agencies. Intelligent plans are being instituted for the use of lands, the location and maintenance of roads and schools, local government administration, the protection of public and private credit, and the preservation of a desirable social order.

The work will continue along the lines already under way.

(p) FOREST FIRE COOPERATION

Appropriation, 1932	$1,775,000
Appropriation, 1933	1,611,580
Appropriation, 1934	1,587,513
Estimated Obligations, 1934	1,190,635
Budget Estimate, 1935	1,198,619
Increase, Budget 1935, compared with Estimated Obligations 1934	7,984

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Taxation Inquiry and Insurance	$ 50,859	$ 35,658	$ 26,106	$+1,736	- $11,288(2)
Cooperation with states in Forest Fire Prevention and Suppression	1,525,012	1,154,977	1,172,513	+3,277	+ 14,259(3)
Total	1,575,871	1,190,635	1,198,619	+5,013	+ 2,971
Unobligated:					
Salary reduction	12,188	6,683	- - -	- - -	- - -
Working funds reduction	23,521	390,195	- - -	- - -	- - -
Total appropriation	1,611,580	1,587,513	1,198,619	- 388,894 (1)	

1. This reduction of $388,894 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 6,683
Curtailments in 1934 working funds	- 390,195
Increase in 1935 working funds for payments to States	+ 14,259
Decrease in 1935 working funds for Insurance Studies	- 11,288
5% Salary restoration	+ 5,013
	- 388,894

(2). The decrease of $11,288 is due to the elimination of the Forest Insurance Studies at the Pacific Northwest Forest Experiment Station, located at Portland, Oregon, and curtailment of the Taxation Inquiry.

(3). The increase of $14,259 will be systematically distributed to the various state allotments for the employment of state fire control organizations.

Work Done Under This Appropriation

Investigations of forest taxation and forest insurance --

The purpose of investigations in forest taxation is to establish the fundamental principles upon which forest taxation should be based and to cooperate with states in working out legislation which will conform to these principles, and at the same time be adapted to the varying conditions in the several states. As a basis for conclusions it has been necessary to collect, analyze, and interpret a wealth of data on such subjects as: The economic and legal background of the entire system of taxation in individual states; the financial structure and existing tax system of states, counties, and minor political subdivisions; expenditures for roads, schools, and other governmental functions; the practical operation of the taxation system in general, including its effect on different classes of property, assessment practices, etc.; existing state forest tax legislation; the actual effect of existing laws on the use of land for growing timber; methods and results of forest tax legislation in European countries where forestry is well established.

A comprehensive formal report, bringing together the fundamental researches of the Inquiry to date and presenting conclusions and recommendations, will be completed for printing this year. In order to stimulate progress in forest tax reform by the several states, and to facilitate the application of remedies recommended by the Inquiry, it will be necessary to supplement the work already done with localized application studies in cooperation with the interested states.

Recognition of the seriousness of the obstacle to private forestry presented by taxation of forests under the unmodified property tax, and of the difficulty of formulating satisfactory systems lead Congress to authorize this study. The importance of it has been further emphasized, first by the economic depression with the acceleration of tax delinquency and instability in forest land ownership generally, and now by the application of the quid pro quo principle of the conservation commitments of the NRA lumber code. The industry is urging comprehensive public measures to improve forest taxation as an outstanding essential to the widespread application of private forestry contemplated by the code. This is an added reason for the application studies mentioned, although they would be a necessary and integral part of the forest taxation project under normal circumstances.

The purpose of the Forest Insurance Investigation now being conducted is to determine under what conditions privately financed fire insurance on growing forests and mature timber is feasible and to work out a satisfactory basis and form for such insurance. The importance of reasonably priced fire insurance facilities is being given added emphasis by the sweeping expansion of private forestry contemplated under the forest products industries' codes.

The work has included the collection of a mass of statistics on forest fires, weather conditions, forest cover, etc., and appraisal of damage caused by fire under different conditions and ratios of log values as a basis for rating schedules. The project, conducted by the Pacific Northwest Forest Experiment Station, was initiated in and is practically completed for the Douglas fir section of Washington and Oregon. Field work has been completed for the pine forests in these states and California and for the pine-fir type in California. Analysis of the data thus obtained is to be completed this year.

Cooperation with States in forest fire prevention and suppression.

In the fiscal year 1934 the Federal Government is assisting 39 states, including Hawaii, in the protection from fire of about 225 million acres of privately-owned and state-owned forest land. The fact that there are still over 190 million acres in great need of similar protection, but receiving none, indicates the urgency of Federal support of this work.

Administration of this activity is handled in each state by the State forestry department; the Federal Government provides a portion of the necessary funds and brings to the aid of the states the composite experience and knowledge gained through nation-wide contact with the forest fire problem.

Plans and budgets are submitted to the Forest Service by the cooperating states which must have joint approval of the Federal Government and the states before they are put into effect. Expenditures reported by the states are the basis for the receipt by the states of their share of the Federal appropriation. The aggregate amount of state and private money budgeted for this work in the fiscal year 1934 is very nearly four times the sum of Federal money budgeted for these projects

During the calendar year 1932 forest fires burned over 1.08% of the 223 million acres of private and state forest land which was cooperatively protected. The corresponding percentage of the nearly 200 million acres which received no protection is estimated at 20%. The number of fires reported for the protected area was 55,575, while on the unprotected area nearly twice that number was estimated, or 105,899. The total damage from fire on protected areas was estimated as $6,900,000 as against a total of $45,580,000 on the unprotected area.

The maintenance of the protection effort of the public is essential if the protection improvements of the CCC are to be adequately maintained and utilized.

Progress in cooperative forest fire protection is roughly indicated by the following expenditures and budget figures:

	Cal.Year 1911 (Actual Expenditures)	Cal.Year 1931 (Actual Expenditures)	Fiscal Yr.1934 (Budgeted)
Total cooperative expenditures	$ 257,000	$ 7,222,000	$ 5,321,000
State and private "	220,000	5,689,000	4,248,000
Federal "	37,000	1,533,000	1,073,000
Number of states and territories cooperating	11	38	39
Areas protected (State and private forest land-acres)	61,000,000	228,000,000	225,000,000

STATE SUMMARY OF ALLOTMENTS

FOREST FIRE COOPERATION UNDER SECTION 2 OF THE CLARKE-McNARY LAW

STATE	Estimated Cost of adequately protecting State and Private Forest Land	Federal objective (Assumed as 25% of Total)	State & Private Expenditures Calendar Year 1932	FEDERAL ALLOTMENT Fiscal Year 1933	F. Y. 1934 (This gives general indications for 1935)	Decrease(*) 1934
Ala.	573,000	143,250	38,630	41,000	33,000	8,000
Ark.	484,000	121,000	-	-	15,000	+15,000
Calif.	969,000	242,250	536,319	160,787	103,611	57,176
Conn.	76,000	19,000	75,990	12,611	8,593	4,018
Del.	12,000	3,000	9,265	2,024	1,571	453
Fla.	847,000	211,750	68,951	67,760	67,760	-
Ga.	775,000	193,750	53,346	62,000	42,000	20,000
Hawaii	5,173	1,293	1,993	444	516	+ 72
Idaho(N)	420,000	105,000	166,971	57,695	39,008	18,687
Idaho(S)	27,000	6,750	11,101	4,370	2,710	1,660
Ill.	77,000	19,250	-	-	-	-
Ind.	84,000	21,000	10,206	6,894	6,943	+ 49
Ky.	212,000	53,000	10,000	14,000	12,000	2,000
La.	434,000	108,500	88,124	45,421	38,277	7,144
Me.	342,000	85,500	169,212	54,272	33,626	20,646
Md.	73,000	18,250	48,824	11,317	8,037	3,280
Mass.	169,000	42,250	73,670	30,004	17,525	12,479
Mich.	662,000	165,500	311,210	111,047	68,040	43,007
Minn.	697,000	174,250	289,218	89,896	66,596	23,300
Miss.	563,000	140,750	14,754	30,000	22,000	8,000
Mo.	347,000	86,750	-	-	-	-
Mont.	190,000	47,500	80,585	24,621	17,801	6,820
Nev.	13,557	3,389	4,594	1,885	1,304	581
N. H.	131,000	32,750	44,852	16,191	11,896	4,295
N. J.	128,000	32,000	159,365	23,034	17,843	5,191
N. Mex.	26,000	6,500	2,341	2,174	2,080	94
N. Y.	378,000	94,500	313,293	59,097	44,764	14,333
N. C.	632,000	158,000	45,122	50,560	36,000	14,560
Ohio	60,000	15,000	12,422	5,903	5,043	860
Okla.	165,000	41,250	15,120	14,820	12,000	2,820
Ore.	584,000	146,000	285,860	91,488	56,655	34,833
Penn.	364,000	91,000	241,776	52,690	34,671	18,019
R. I.	17,000	4,250	15,837	1,733	1,512	221
S. C.	378,000	94,500	32,075	31,044	25,000	6,044
S. D.	4,500	1,125	2,560	847	491	356
Tenn.	245,000	61,250	25,346	19,600	19,600	-
Texas	434,000	108,500	58,897	39,238	36,330	2,908
Vt.	57,000	14,250	13,598	5,908	5,162	746
Va.	397,000	99,250	51,135	34,186	31,760	2,426
Wash.	632,000	158,000	191,058	89,269	58,479	30,790
W. Va.	312,000	78,000	58,986	26,810	25,443	1,367
Wisc.	390,000	97,500	366,597	65,485	46,581	18,904
Totals-	13,386,230	3,346,557	3,999,033	1,458,125	1,077,228	380,897
Administration & Inspection				81,880	71,749	
Forest Taxation & Insurance Study				63,720	35,658	
Contingent for Additional States				7,855	6,000	
				1,611,580	1,190,635	

*The decreases for 1935 will be less than this aggregate by $14,259.

(g) Cooperative Distribution of Forest Planting Stock

Appropriation, 1932	$ 95,000
Appropriation, 1933	79,960
Appropriation, 1934	74,730
Estimated Obligations, 1934	56,047
Budget Estimate, 1935, ...	56,296
Increase, Budget 1935, compared with Estimated Obligations, 1934	249

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Cooperation with States in the procurement, production, and distribution of forest trees, seeds, and plants, in establishing windbreaks, shelter-belts, and farm woodlots upon denuded or non-forested lands	$76,819	$ 56,047	$56,296	+$249	- - -
Unobligated:					
Salary reduction	550	111	- - -	- - -	- - -
Working funds reduction.....	2,591	18,572	- - -	- - -	- - -
Total appropriation.....	79,960	74,730	56,296	- 18,434 (1)	

(1) The reduction of $18,434 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut...	- $ 111
Curtailments in 1934 working funds	- 18,572
5% Salary restoration	+ 249
	- 18,434

Work Done Under This Appropriation

The work under this appropriation consists of cooperation with 40 States, including Puerto Rico and Hawaii, in the production and distribution of forest planting stock for establishing windbreaks, shelterbelts, and farm woodlots upon denuded or non-forested lands, as authorized by Section 4 of the Clarke-McNary Act of June 7, 1924.

This work is administered directly by the state agencies; the Forest Service inspects, advises, and correlates. It is very desirable that the work continue without curtailment in order that the progress being made in stimulating the projects of cooperating states may be sustained and not retarded. These funds are largely used for maintaining existing nurseries on established production programs, and curtailment will affect the supply of planting stock not only for the immediate future but for several years, since it takes from one to four years to produce this stock for field planting.

In spite of the depression, the states distributed a total of 23 1/2 million trees for use on farm lands in the calendar year 1932. This represents a decrease of about 2 million trees from the 1931 distribution.

The planting of these trees represents direct action aimed at the proper utilization of certain farm lands which are sub-marginal for agricultural use. During the fiscal year 1933 the states spent $196,000 on these cooperative projects, while the Federal contributions to the same projects totaled $77,000. For the fiscal year 1934 it has been necessary to reduce the regular allotment to each state which can qualify for $2,000 to $1,500.

Authorization covering purchase of Passenger-Carrying Vehicles (Forest Service)

An increase of $3920 is recommended in the passenger-carrying vehicle purchase authorization for 1935 in order that in addition to replacement of old cars, by exchange, as shown in detail in the Budget schedule, the Forest Service may make further progress in the program of supplying a Government-owned automobile for use of each forest administrative unit where conditions make this the most effective and economical means of transportation. Under the reductions that have been made in funds for operating purposes it has been necessary to consolidate administrative units in all parts of the country, thus making automobile transportation an urgent necessity in these cases. No passenger-carrying vehicles were purchased in 1934. As shown by the Budget schedule, authorization is provided for 27 additional cars, at an average net cost of $505.

In addition to the above, an increase of $835 is recommended in the authorization for passenger-carrying vehicles for use in the construction and maintenance of National Forest roads. This increase contemplates purchase of 2 additional cars at an average cost of $418, for the use of engineer inspectors.

Careful operating cost records and work surveys have shown conclusively that the field of effective accomplishment of a ranger or other Forest officer is materially extended by the availability at all times of motor transportation.

(r) ACQUISITION OF LANDS FOR PROTECTION OF WATERSHEDS OF NAVIGABLE STREAMS

Appropriation, 1932	$2,000,000	
Appropriation, 1933	200,000	
Appropriation, 1934.....	85,854	(a)
Estimated Obligations, 1934	- - -	(a)
Budget Estimate, 1935	- - -	(b)

(a) Although the Act making appropriations for the Department of Agriculture for the fiscal year 1934 provided $85,854 for the acquisition of forest lands, there will be, however, no expenditures from this appropriation because of the availability of funds authorized by the Act of June 16, 1933 (mentioned in note (b).)

(b) By Executive Order of July 21, 1933, the President allotted for the acquisition of forest lands $20,000,000 of the funds made available by the Act approved June 16, 1933, (Public 67, 73rd Cong.) and in view of the fact that this allotted fund will not be fully expended until towards the close of the fiscal year 1935, no estimate for the acquisition of lands is included in the appropriations for the Department of Agriculture for the fiscal year 1935.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Decrease
Obligated:				
Examination and purchase of additional forest lands at headwaters of navigable streams.....	$177,835	- - -	- - -	- - -
Unobligated:				
Salary reduction	17,838	- - -	- - -	- - -
Working funds reduction.	4,327	$ 85,854	- - -	$ -85,854
Total appropriation.....	200,000	85,854	- - -	-85,854

Emergency Funds Applicable Under This Heading

National Industrial Recovery, (Transfer from War to Agriculture)
Forest Service, 1933-35

As stated in note (b) preceding, the President by Executive Order of July 21, 1933, allotted for acquisition of forest lands $20,000,000 of the funds made available under the Emergency Conservation and Industrial Recovery Acts.

These funds will be used for the examination and purchase of additional lands for National Forest purposes, and of the $20,000,000 allotted it is estimated that $13,845,378 will be obligated during the fiscal year 1934, and $6,154,622 during 1935.

The work to be done includes: General field examinations to determine areas within which forest land purchases should be made; compilation of basic title data such as original colonial grants and ensuing transfers; compilation of lists of land owners;; solicitation of offers of lands; examinations, cruises, mapping and appraisal of offered lands and preparation of reports thereon; initiation of plans and programs of protection, development, management and administration. (2) Compilation of reports for consideration and action by National Forest Reservation Commission; verification of titles to lands approved for purchase and transmittal to Attorney General for approval; assumption of full control over acquired lands and actual application thereto of all principles of National Forest management, including timber sales, other uses of natural resources, protection against fire, insects and diseases, silvicultural operations, etc.

PERMANENT INDEFINITE APPROPRIATIONS AND SPECIAL FUNDS

(s) Refunds to Depositors, excess of deposits, National Forest Fund

Appropriation, 1932	$75,000
Appropriation, 1933	75,000
Appropriation, 1934.....	75,000
Estimated Obligations, 1934.....	60,000
Budget Estimate, 1935, ...	60,000

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary restoration	Increase or Decrease Working Funds
Obligated: Refunds to depositors, excess of deposits, National Forest Fund.....	$69,340	$60,000	$60,000	- - -	- - -
Unobligated:	5,660	15,000	- - -	- - -	- - -
Total appropriation.....	$75,000	$75,000	$60,000	- $15,000 (1)	

Work Done Under This Appropriation

All money received, by or on account of the Forest Service for timber, or from any other source of forest-reservation revenue, is covered into the Treasury of the United States as a miscellaneous receipt; and there is appropriated so much as may be necessary to make refunds to depositors of money deposited by them in excess of amounts found actually due from them to the United States, and so much as may be necessary to refund to the rightful claimants such sums as may be found to have been erroneously collected for the use of lands, or for timber or other resources sold from lands located within, but not a part of, the National Forests, or for alleged illegal acts done upon such lands, which acts are subsequently found to have been proper and legal.

(t) National Forest Reservation Commission

Appropriation, 1932	$ 500
Appropriation, 1933	576
Appropriation, 1934	3,600
Estimated Obligations, 1934	3,600
Budget Estimate, 1935	2,600
Decrease, Budget 1935, compared with Estimated Obligations, 1934	1,000

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Decrease
Obligated:				
Expenses of National Forest Reservation Commission	$576	$3,600	$2,600	- $1,000 (1)

(1) This reduction of $1,000 below the appropriation for 1934 consists of:

Curtailments in 1935 working funds:		
For travel	$975	
For printing	25	- $1,000

Work Done Under This Appropriation

A sum sufficient to pay the necessary expenses of the commission and its members, not to exceed an annual expenditure of $25,000, is provided under this item to be paid out on the audit and order of the president of the commission, which audit and order is conclusive and binding upon all departments as to the correctness of the accounts of the commission.

(u) Payments to States and Territories
National Forests Fund

Appropriation, 1932	$1,600,000
Appropriation, 1933	568,257
Appropriation, 1934 (Approximated)	940,000
Estimated Obligations, 1934	650,861
Budget Estimate, 1935	660,000
Increase, Budget 1935, compared with Estimated Obligations, 1934	9,139

PROJECT STATEMENT

Project	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary restoration	Increase or Decrease Working Funds
Obligated:					
Payment of 25% of National Forest Receipts to States in which National Forests are situated.....	$568,257	$650,861	$660,000	- - -	+$9,139(2)
Unobligated:	- - -	289,139	- - -	- - -	- - -
Total appropriation.....	568,257	940,000	660,000		- 280,000 (1)

(1) This reduction of $280,000 below the appropriation for 1934 consists of:

Curtailments in 1934 funds.....	-289,139
Increase in 1935 funds.....	+ 9,139
	-280,000

(2) The increase of $9,139 in the estimated obligations for 1935 is based on anticipated increase in net receipts during the fiscal year 1934.

Work Done Under This Appropriation

Twenty-five per cent of all money received from each National Forest during any fiscal year is paid at the end thereof by the Secretary of the Treasury to the State or Territory in which the National Forest is situated, to be expended as the State or Territorial legislature may prescribe for the benefit of the public schools and public roads of the country, or counties in which the National Forest is situated. When any National Forest is in more than one State or Territory or county, the distributive share to each from the proceeds of the forest is proportionate to its area therein.

(v) PAYMENTS TO SCHOOL FUNDS, ARIZONA AND NEW MEXICO, NATIONAL FOREST FUND

Appropriation, 1932	$40,000
Appropriation, 1933	21,221
Appropriation, 1934 (Approximated).....	25,000
Estimated Obligations, 1934.....	28,456
Budget Estimate, 1935	28,500
Increase, Budget 1935 compared with Estimated Obligations, 1934	44

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase
Obligated:				
Payments to the common-school funds of Arizona and New Mexico on account of receipts from State lands administered as part of National Forests	$21,221	$28,456	$28,500	+ $ 44

Work Done Under This Appropriation

At the close of each fiscal year there is paid by the Secretary of the Treasury to each of these two States, as income for its common-school fund, such proportion of the gross proceeds of all the National Forests within the State as the area of lands granted to the State for school purposes within these forest reserves may bear to the total area of all National Forests within these states.

(w) ROADS AND TRAILS FOR STATES, NATIONAL FOREST FUND

Appropriation, 1932	$600,000
Appropriation, 1933	500,000
Appropriation, 1934	370,000
Estimated obligations, 1934	260,343
Budget Estimate, 1935.....	- - -
Decrease, Budget 1935, compared with Estimated obligations 1934	260,343

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Construction and maintenance of roads and trails within the National Forests.....	$219,943	$260,343	(a)	- - -	-$260,343(a)
Unobligated:	280,057	109,657	- - -	- - -	- - -
Total appropriation	500,000	370,000	(a)	-370,000(a)	

(a) While, in view of road building expenditures from emergency funds, there is no Budget estimate shown for 1935, there is, however, an unobligated balance of $405,700 of prior year appropriations available for use during 1935 and which it is contemplated will be fully obligated during that year.

Work Done Under This Appropriation

This appropriation is used for the construction and maintenance of roads and trails within the boundaries of the National Forests and of value to the National Forests and needed by the public. They include transportation facilities that would be constructed by public agencies if the National Forest land and resources were subject to taxation.

The appropriation for the fiscal year 1934 and earlier was made available in accordance with the provisions of the Agricultural Appropriation Act of March 4, 1913 (37 Stat. 828), which makes available 10% of the receipts from the National Forests within a State during any fiscal year for the construction and maintenance of roads and trails within the National Forests of that State.

(x) COOPERATIVE WORK - FOREST SERVICE
(Contributed Funds)

Appropriation, 1932	$1,700,000
Appropriation, 1933 (Approximated)....	2,344,213
Appropriation, 1934 (Approximated)....	1,676,545
Estimated Obligations, 1934.....	1,516,141
Budget Estimate, 1935	2,000,000
Increase, Budget 1935, compared with Estimated Obligations, 1934.....	483,859

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Construction of improvements.....	$ 1,808,178	$ 1,333,389	$ 1,780,435	$ + 4,459	$ +442,487
Maintenance of Improvements.....	46,061	35,000	46,000	+ 117	+ 10,883
Prevention and suppression of forest fires.....	192,973	74,752	95,000	+ 243	+ 20,005
Disposal of brush and other debris in timber sale operations.....	39,411	50,000	55,065	+ 141	+ 4,924
Forest Investigations....	6,030	5,000	5,000	+ 12	- 12
Administration.....	11,260	10,000	10,000	+ 25	- 25
Reforestation.....	6,290	5,000	5,000	+ 13	- 13
Refunds to cooperators...	3,196	3,000	3,500	+ 10	+ 490
Total	2,113,399	1,516,141	2,000,000	+ 5,120	+478,739(2)
Unobligated:.....	24,250	160,404	- - -	- - -	- - -
Total.....	2,137,649	1,676,545	2,000,000	- - -	- - -
Deduct 1932 appropriation balance available in 1933	-637,538	- - -	- - -	- - -	- - -
Add balance of 1933 appropriation carried over to fiscal year 1936.....	+844,102	- - -	- - -	- - -	- - -
Total appropriation.....	2,344,213	1,676,545	2,000,000	+ 323,455(1)	

(1) This increase of $323,455 over the appropriation for 1934 consists of:

Curtailments in 1934 funds	-$160,404
Increase in 1935 funds	+ 478,739
5% salary restoration.....	+ 5,120
	+ 323,455

(2) The increase of $478,739 in available working funds for the fiscal year 1935 is based on anticipated cooperative deposits during 1935 estimated at $2,000,000. The changes shown for projects constitute administrative adjustments resulting from prorations of the increase after taking into consideration increases on account of the 5% salary restoration.

Work Done Under This Appropriation

All moneys received as contibutions toward cooperative work in forest investigations, or the protection and improvement of the National Forests, including deposits received from timber purchasers to cover the cost to the United States of disposing of brush and other debris resulting from cutting operations in sales of National Forest timber, are covered into the Treasury of the United States and constitute a special fund, which is appropriated and made available until expended as the Secretary of Agriculture may direct, for the payment of the expenses of the investigations, protection, or improvements of the Forest Service, and for refunds to the contributors of amounts paid in by them in excess of their share of the cost of investigations, protection, or improvements.

Emergency Funds
(Improvement of the National Forests)

Under provisions of the National Industrial Recovery Act approved June 16, 1933, (Pub.67,73d Congress) the Federal Emergency Administration of Public Works alloted $15,982,745 (exclusive of acquisition of land and road construction funds) to the Forest Service, as follows:

Transfers:

Rodent Control, (Transferred to the Bureau of Biological Survey).....$293,100

Budget Schedule provision for use of emergency funds in lieu of funds for works normally provided for under regular appropriations for 1935, as follows:

General Administrative Expenses		$9,786	
Protection and Administration of the National Forests:			
Fire Prevention	$213,714		
Blister Rust Control	209,470	441,184	
Aerial Fire Control		12,487	
Classification of Lands		1,172	
Sanitation and Fire Prevention		19,752	
Planting on the National Forests		152,798	
Reconnaissance		34,457	
Improvement of the National Forests		142,179	
Forest Surveys		118,543	
Soil Erosion Investigations		67,642	1,000,000

Other Work on the National Forests: PROJECTS	Estimate 1934	Estimate 1935
1. Construction and maintenance of Permanent Fire Breaks	$1,075,077	$554,534
2. Construction and maintenance of Lookout Houses, Towers and Observatories	351,453	168,744
3. Construction and maintenance of Telephone lines for fire protection	531,502	274,076
4. Construction and maintenance of range fences, driveways and bridges, water development for stock	1,036,390	647,358
5. Construction and maintenance of Public camp ground improvement	383,915	219,984
6. Construction and maintenance of dwellings, barns and offices at isolated stations	554,698	346,382
7. Miscellaneous construction, including fences and water development for administrative and research uses, landing fields, small buildings, etc.	678,506	281,627
8. Eradication of poisonous plants from National Forest Ranges	107,546	67,156
9. White Pine blister rust control	1,189,995	515,164
10. Control of tree destroying insects	190,761	119,122
11. Timber stand improvement	1,341,166	826,768
12. Planting and Tree Nurseries	416,464	107,263
13. Construction of buildings requiring legislation.	387,075	241,710
14. Estimating timber resources	170,654	77,596
15. Revegetation of forest ranges	49,536	30,964
16. Rodent control	1,847	1,153
17. Erosion control	324,115	134,753
18. Improvement of forest waters for fish protection	103,410	64,590
19. Range surveys	85,224	35,123
20. Boundary surveys	31,703	19,797
21. Surveys needed for forest activities not including topographic quadrangles or GLO cadastral surveys	273,938	171,062
22. Research:		
Forest Management	80,024	---
Range Investigation	48,175	---
Forest economics	11,910	---
Forest survey	325,000	---
Soil erosion	34,585	---
Totals	9,784,719	4,904,926
	$14,689,645	
Plus transfers (listed on preceding page)	1,293,100	
Grand Total	15,982,745	

The estimated expenditures by States are given below:

State	Amount
Alabama	$ 20,900
Alaska	24,315
Arizona	1,007,780
Arkansas	345,098
California	2,809,030
Colorado	398,393
Connecticut	2,180
Florida	143,836
Georgia	164,905
Idaho	2,562,030
Illinois	19,980
Indiana	1,070
Kentucky	107,350
Louisiana	127,496
Maine	47,700
Michigan	650,245
Minnesota	801,830
Mississippi	180,085
Montana	1,083,062
Nebraska	52,695
Nevada	112,710
New Hampshire	134,460
New Jersey	6,410
New Mexico	744,810
New York	10,715
North Carolina	139,540
North Dakota	2,500
Ohio	1,100
Oklahoma	84,080
Oregon	768,489
Pennsylvania	95,730
Puerto Rico	- - -
South Carolina	80,320
South Dakota	120,183
Tennessee	144,925
Texas	21,000
Utah	355,040
Vermont	29,500
Virginia	109,330
Washington	774,461
West Virginia	166,550
Wisconsin	1,291,925
Wyoming	238,987
Total	15,982,745 (1)

(1) The foregoing allotments are subject to revision in order to cover transfer of $1,000,000, as provided by the Budget schedules for expenditure under the regular items of the Forest Service during 1935.

Emergency Conservation Fund

(Act of 3/31/33, War, transfer to Agriculture)

Under provision of the Act of March 31, 1933, (Public No. 5, 73d Congress) entitled "For the Relief of Unemployment Through the Performance of Useful Public Work and for Other Purposes" and pursuant to Executive Order No. 6101, dated April 5, 1933, allotments are made to the Forest Service through the War Department for Emergency Conservation Work as follows:

	1933	1934 (Estimated)	Total to June 30, 1934
1. For Emergency Conservation Work on the National Forests . . .	$1,319,799	$33,653,854	$34,973,653

Estimated obligations by States are given below:

District of Columbia	$ 94,169
Alabama	139,587
Arizona	1,455,379
Arkansas	1,730,121
California	8,407,384
Colorado	842,497
Connecticut	894
Florida	285,743
Georgia	318,607
Idaho	4,080,822
Illinois	119,650
Kansas	1,349
Kentucky	98,348
Louisiana	127,065
Maine	70,330
Maryland	799
Michigan	669,490
Minnesota	841,400
Mississippi	210,161
Missouri	224,470
Montana	1,039,243
Nebraska	6,927
Nevada	299,630
New Hampshire	355,683
New Mexico	1,230,411
New York	1,284
North Carolina	725,985
North Dakota	3,252
Ohio	48
Oklahoma	166,531
Oregon	3,611,837
Pennsylvania	340,918

South Carolina	142,546
South Dakota	265,693
Tennessee	563,323
Texas	2,211
Utah	1,441,190
Vermont	118,691
Virginia	520,003
Washington	2,626,931
West Virginia	320,461
Wisconsin	693,365
Wyoming	779,225
Total	34,973,653

Work Done Under This Allotment

This allotment is used for the pay of supervisory and facilitating personnel necessary for the field work done from E.C.W. camps on National Forests; also for purchase of necessary equipment and construction materials and for miscellaneous expenses incident to the field work of the camps. The field work on the National Forests includes construction of physical improvements needed for protection and administration of the Forests, tree planting, thinning of young stands of timber, destruction of undesirable timber species and, rodent control.

	1933	1934 (Estimated)	Total to June 30, 1934
2. For Emergency Conservation Work in Alaska . .	$12,057	$392,262	$404,319

Work Done Under This Allotment

This allotment is used for pay and allowances to dependents of enrolled members of the Civilian Conservation Corps and for salaries and wages of extra supervisory and clerical personnel needed in connection with the work. It is also used for purchase of clothing, subsistence, supplies and camp equipment required for enrolled men of the corps and for the purchase of construction materials used in the work. Classes of work done under this allotment include construction of trails, minor roads, bridges, water development and improvement and miscellaneous administrative improvements; roadside clearings and public camp ground improvement, estimating timber resources, and other miscellaneous work.

The men engaged in the work are recruited from the unemployed local residents without regard to age.

	1933	1934 (Estimated)	Total to June 30, 1934
3. Emergency Conservation Work on State, Municipal and privately-owned land	$25,375	$30,291,614	$30,316,989

Estimated obligations by States are given below:

Alabama	$ 464,910
Arkansas	319,759
California	1,038,756
Connecticut	755,973
Delaware	19,984
Florida	526,778
Georgia	1,241,136
Idaho	837,120
Illinois	412,054
Indiana	908,078
Iowa	787,291
Kansas	232,656
Kentucky	636,814
Louisiana	840,047
Maine	548,341
Maryland	357,954
Massachusetts	1,163,696
Michigan	2,230,774
Minnesota	1,075,275
Mississippi	367,986
Missouri	336,276
Montana	35,855
Nebraska	57,731
Nevada	40,166
New Hampshire	218,927
New Jersey	333,733
New Mexico	13,220
New York	666,048
North Carolina	394,335
North Dakota	212,644
Ohio	643,640
Oklahoma	455,406
Oregon	549,226
Pennsylvania	4,127,767
Rhode Island	168,637
South Carolina	950,288
South Dakota	72,477
Tennessee	524,648
Texas	1,010,155
Utah	336,828
Vermont	656,525
Virginia	1,158,138
Washington	687,834
West Virginia	371,653
Wisconsin	1,338,402
Wyoming	21,968
Overhead	169,080
Total	30,316,989

Work Done Under This Allotment

This allotment is used for the payment of expenses incurred by States in the conduct of Emergency Conservation Work on State, Municipal, and privately-owned lands, including the purchase of supplies, material and equipment used in the work and for payment of salaries and wages of Supervisory personnel directing the work of the enrolled men, and for other necessary expenses incident to the work.

Work being accomplished under this allotment includes such important conservation efforts as the following: Protection of State and private forest land from fire, by construction of fire breaks, lookout towers, communication systems, truck trails, tool sheds, guard houses, and the fighting of forest fires; protection of State and privately-owned forests from epidemic spread of forest insects and tree diseases, forest cultural measures to improve the forest growth on State owned land, and the construction of simple dams and the planting of trees, grass, etc., for the control of erosion and flash run-off at the head waters of streams.

	1933	1934 (Estimated)	Total to June 30, 1934
4. Emergency Conservation Work on Oregon and California R. R. Grant Lands	$1,764	$449,856	$451,620

Work Done Under This Allotment

This allotment is used for the pay of supervisory and facilitating personnel necessary for the field work done from E.C.W. camps on revested O. & C. lands in Oregon; also for purchase of necessary equipment and construction materials and miscellaneous expenses incident to such field work. The field work is done to make possible more effective fire protection on these publicly owned timber lands.

	1933	1934 (Estimated)	Total to June 30, 1934
5. Emergency Conservation Work in Puerto Rico	$15	$225,425	$255,440

Work Done Under This Allotment

This allotment is used for the payment of 1,200 authorized enrollees, the supervisory personnel engaged in the technical direction of the work projects on the Luquillo National Forest and the Insular Forests and for the purchase of equipment and supplies incident to the work.

The work projects comprise the construction and maintenance of roads and trails, the production of nursery stock, the making of new and the thinning of old forest plantations, forest thinnings to improve the timber stands within the National and Insular Forests and the development of a recreational area within the National Forest.

With a population of 1,500,000 the unemployment situation on the Island has been acute and since the enrollment of the 1,200 men has been on a pro rata basis from the 72 Insular municipalities, the E.C.W. work has played its part in giving a measure of relief.

Camps are not established as they are in the States since a large proportion of the enrollees live at home and go to and from the work projects.

CIVIL WORKS PROJECT

Allotments by the Civil Works Administration aggregating $6,934,734 have been made. These funds are available for costs, including wages, for work on and in connection with the improvements, maintenance and development of the National Forests and Experiment Station Units, as follows:

State	No. of Men	Authorization to Forest Service for Costs other than Wages	Authorization to States for Cost of Wages	Total Costs
Alabama	200	$ 9,188	$ 31,446	$ 40,634
Arizona	1,255	48,068	197,203	245,271
Arkansas	61	2,349	9,615	11,964
California	8,000	306,240	1,386,320	1,692,560
Florida	910	41,803	143,146	184,949
Georgia	929	42,691	146,120	188,811
Idaho	55	2,132	10,314	12,446
Illinois	2,000	91,884	380,340	472,224
Indiana	10	455	1,848	2,303
Kentucky	700	32,159	121,272	153,431
Louisiana	597	27,435	93,948	121,383
Michigan	2,418	92,612	458,504	551,116
Minnesota	2.645	101,224	501,988	603,212
Mississippi	95	3,654	14,734	18,388
Missouri	4,852	185,745	840,784	1,026,529
Montana	20	1,283	3,705	4,988
New Hampshire	80	3,045	15,189	18,234
New Jersey	12	542	2,172	2,714
New Mexico	10	792	1,787	2,579
New York	10	455	1,848	2,303
North Carolina	182	6,916	31,818	38,734
Ohio	16	737	3,062	3,799
Oregon	93	4,567	17,488	22,055
Pennsylvania	3,045	116,254	645,298	761,552
Utah	25	1,414	4,464	5,878
West Virginia	1,350	51,982	233,926	285,908
Wisconsin	1,900	87,290	352,210	439,500
Dist. of Col.	154	6,000	15,269	21,269
Totals	31,624	1,268,916	5,665,818	6,934,734

This money covers the estimated costs of wages and expenses incident to the employment of 31,624 Civil Works employees, distributed as shown in the tabulation above for the period December 1, 1933 to February 15, 1934. Particular attention has also been given to placing these workers on jobs requiring minimum expenditures for other than wages.

The wages for laborers are paid by the State Civil Works Administrators from authorizations given them by the C.W.A.

Work Done Under This Allotment

The work being done generally under this project is limited, administratively, to the lower priority sections of the approved activities authorized under the Public Works program for the Forest Service, and involves fire break construction, fire hazard removal, foot and truck-trail construction, public camp ground clearings, water development for livestock on forest ranges, eradication of poisonous range plants, erosion control, and some construction of telephone lines and small structures for use in connection with the fire protection organization.

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BUREAU OF CHEMISTRY AND SOILS

(a) General Administrative Expenses

Appropriation, 1932	$97,600
Appropriation, 1933	96,720
Appropriation, 1934	89,903
Estimated Obligations, 1934	80,305
Budget Estimate, 1935	84,402
Increase, Budget 1935, compared with Estimated Obligations, 1934	4,097

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
General Administration	$79,432	$80,305	$ 84,402	+ $4,097	- - -
Unobligated:					
Salary reduction	8,658	5,394	- - -	- - -	- - -
Working funds reduction	9,630	4,204	- - -	- - -	- - -
Total Appropriation	96,720	89,903	84,402	- 5,501 (1)	

(1) This reduction of $5,501 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$ 5,394
Curtailments in 1934 working funds	- 4,204
5% salary restoration	+ 4,097
	- 5,501

Work Done Under This Appropriation

This appropriation provides for the salaries and expenses of the office of the Chief of Bureau and the business organization units such as Accounting, Personnel, Editorial, Supplies, etc. It is for the purpose of maintaining general administration and direction of the Bureau.

Emergency Funds Applicable Under This Heading

Under Civil Works allotment, $2,382 has been made available for office assistance in connection with Civil Works projects.

(b) Agricultural Chemical Investigations

Appropriation, 1932	$501,075
Appropriation, 1933	453,699
Appropriation, 1934	410,000
Estimated Obligations, 1934	330,500
Budget Estimate, 1935	304,870
Decrease, Budget 1935, compared with Estimated Obligations, 1934	25,630

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Carbohydrates	$74,648	$ 64,745	$ 60,900	+$2,660	-$6,505(2)
Food Research	102,620	93,595	86,445	+ 4,314	-11,464(3)
Fruit and Vegetable Utilization	52,824	47,415	43,680	+ 1,995	- 5,730(4)
Industrial Farm Products	82,461	68,585	59,940	+ 2,957	-11,602(5)
Lignin	10,221	9,385	8,580	+ 460	- 1,265(6)
Oil, Fat, and Wax	8,550	8,405	8,525	+ 425	- 305(7)
Protein and Nutrition	27,693	26,180	24,580	+ 1,265	- 2,865(8)
Farm Fires	12,360	12,190	12,220	+ 595	- 565(9)
Total	371,377	330,500	304,870	+14,671	-40,301
Unobligated:					
Salary reduction	36,975	21,518	- - -	- - -	- - -
Working funds reduction	45,347	57,982	- - -	- - -	- - -
Total Appropriation	453,699	410,000	304,870	- 105,130(1)	

(1) This reduction of $105,130 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$21,518
Curtailments in 1934 working funds	- 57,982
Further reduction in working funds for 1935 ($6,505 for carbohydrate investigations; $11,464 for food research; $5,730 for fruit and vegetable utilization; $11,602 for industrial farm products; $1,265 for lignin; $305 for oil, fat, and wax; $2,865 for protein and nutrition; and $565 for farm fires)	- 40,301
5% salary restoration	+ 14,671
	- 105,130

The reduction of $40,301 in the working funds under this item for 1935 will make necessary discontinuance and suspension of investigative work as follows:

(2) A decrease of $6,505 for carbohydrate investigations will make nessary discontinuance of research on the clarification of honey.

(3) A decrease of $11,464 for food research will necessitate the suspension of phases of work on plant pigments, which require a large amount of fundamental chemical work before a real start can be made on the practical application of this type of work to the production and preservation of food products where the naturally occurring plant pigment is of prime commercial importance; suspension of studies on fermentation flavors in sirups and molasses; discontinuance of the study of the ash constituents in foods and feeds, because the magnitude of the problem, due to varying conditions of production, will require many years of research to produce results of real value.

(4) A decrease of $5,730 for fruit and vegetable utilization will make necessary the closing of the Citrus Products Station at Weslaco, Texas. This laboratory has been in active operation slightly more than one season, and it has not been possible in this short time to develop results of value to the Texas citrus industry.

(5) A decrease of $11,602 for industrial farm products will make necessary the discontinuance of the field work on the curing and handling of hides and skins, which has been under way since 1928; curtailment of investigations of the causes of deterioration of permanent record papers and of work on paper specifications for the Joint Committee on Printing (this work has been conducted in cooperation with the Paper Specifications Committee designated by the Joint Committee on Printing); discontinuance of work on preservative treatment of tobacco shade cloth and on the weather-resistant fireproofing treatment of farm fabrics and awning duck; discontinuance of furnishing information on miscellaneous subjects in chemical technology including the furnishing of information to farmers on the painting of farm buildings.

(6) A decrease of $1,265 for lignin investigations will necessitate the curtailment of research on the economic utilization of numerous types of farm wastes and wastes from paper mills and wood-working industries.

(7) A decrease of $305 for oil, fat, and wax investigations will necessitate reduction in operating expenses by that amount.

(8) A decrease of $2,865 for protein and nutrition investigations will necessitate curtailment on protein analyses of feedstuffs; of investigations on vitamins in foods and feeds, and on the effect upon vitamins of certain commercial processes used in food production; of cooperative work with the Food and Drug Administration in developing information on vitamins to aid officials in enforcing the Federal food and drugs act, and of investigations on the nature, isolation and identification of the toxic principle in osteoedemic wheat.

(9) A decrease of $565 for farm fires investigations will necessitate curtailment of research on methods for the prevention of self-heating of agricultural products.

Work Done Under This Appropriation

The work under this appropriation comprises a broad program of agricultural chemical and technological research with the objectives of widening markets for farm products through the development of more extensive industrial uses; improvement in quality and better adaptation of products to market requirements; profitable utilization of farm by-products, wastes, and surpluses; discovery of uses for hitherto unutilized plants and new uses for minor crops in order to substitute these for overproduced crops; development and substitution of domestic for imported products; and reduction of losses from spoilage, deterioration, and from destruction by fire. This work involves fundamental research on the chemical nature of the numerous organic and inorganic constituents of agricultural products, and technological application of the knowledge thus acquired to the solution of practical problems.

The work includes studies of carbohydrate crops and products, such as sugarcane, sugar beets, farm-made sirups, honey, starchy plants, and plants containing miscellaneous carbohydrates; chemical, biochemical and bacteriological investigations of foods, the biological changes in raw and manufactured foods, causes of deterioration, and improved methods of preservation; fruit and vegetable utilization studies concerned with profitable uses of fruit and vegetable culls and surpluses; investigations relating to the conservation of hides and skins, serviceability of leather, development of new sources of tanning materials, durability of papers, waterproofing and fireproofing farm fabrics, and industrial utilization of straw, cornstalks, hulls, etc.; research in the chemistry of lignin; studies of oils, fats, and waxes; chemical and biological investigations of the nutritive value of foods and feeds with reference to their protein and vitamin content; and studies of the spontaneous heating of agricultural products and the prevention of farm fires.

Field laboratories for fruit and vegetable utilization studies are maintained at Los Angeles, California, Winter Haven, Florida, and Weslaco, Texas, where abundant raw materials are readily available and where the problems can be studied in relation to regional conditions. Investigations on the economic utilization of farm by-products, such as straw, corn stalk, bagasse, and grain hulls are conducted at Ames, Iowa, in cooperation with the Iowa State College.

Emergency Funds Applicable Under This Heading

Under the National Industrial Recovery Act, allotments have been made as follows: For physical improvements at the Citrus By-Product Laboratory, Weslaco, Texas, $250; for construction of an agricultural by-product laboratory at Ames, Iowa, $70,000, of which it is estimated that $45,000 will be expended in the fiscal year 1934, and $25,000 in 1935.

Civil Works allotments totalling $2,008 have been made for maintenance work at the Winter Haven, Florida, and Weslaco, Texas stations, and for general cleaning work, etc., in the Washington laboratories and offices.

(c) Color Investigations

Appropriation, 1932	$ 93,460
Appropriation, 1933	75,000
Appropriation, 1934	69,000
Estimated Obligations, 1934	60,000
Budget Estimate, 1935	63,255
Increase, Budget 1935, compared with Estimated Obligations, 1934	3,255

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Color and Fermentation Investigations	$ 65,494	$ 60,000	$ 63,255	+ $3,255	- - -
Unobligated:					
Salary reduction....	7,000	4,494	- - -	- - -	- - -
Working funds reduction	2,506	4,506	- - -	- - -	- - -
Total Appropriation..	75,000	69,000	63,255	- 5,745 (1)	

(1) This reduction of $5,745 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $4,494
Curtailments in 1934 working funds	- 4,506
5% salary restoration	+ 3,255
	- 5,745

Work Done Under This Appropriation

Work under this appropriation includes chemical research on the development of new color substances particularly applicable to American agricultural materials such as cotton, the synthetic cellulose fibres, and wool; investigations to increase the use of these materials by the development of more economical methods of production of dyes especially applicable to them, thereby broadening the market for cotton and wool; fundamental research on the utilization of agricultural crops and by-products by mold fermentation processes for the production of valuable chemical compounds not obtainable by other means; development and standardization of biological stains required in the study of plant and animal diseases, in the examination of water, milk, soils and many agricultural products, as well as in medicine and in all branches of biological sciences; and cooperative investigations with other bureaus and agencies in the preparation, examination, and utilization of color substances and other products used or produced in their investigations. The maintenance of a reliable and continuous source of essential dyes, stains, and chemicals is dependent on these researches.

Emergency Funds Applicable
Under This Heading

An allotment of $4,594 has been made under the National Industrial Recovery Act for reroofing and painting the Color Laboratory at Arlington Farm.

(d) Insecticides and Fungicides Investigations

Appropriation, 1932	$128,400
Appropriation, 1933	117,300
Appropriation, 1934	109,563
Estimated Obligations, 1934	93,000
Budget Estimate, 1935	87,920
Decrease, Budget 1935, compared with Estimated Obligations, 1934	5,080

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Organic Insecticides and fungicides.....	$ 70,885	$ 65,100	$ 58,560	+$ 2,972	- $9,512(2)
Inorganic insecticides and Fungicides.....	30,762	27,900	29,360	+ 1,460	- - -
Total.....	101,647	93,000	87,920	+ 4,432	- 9,512
Unobligated:					
Salary reduction	10,177	6,747	- - -	- - -	- - -
Working funds reduction	5,476	9,816	- - -	- - -	- - -
Total Appropriation...	117,300	109,563	87,920	- 21,643 (1)	

(1) This reduction of $21,643 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 6,747
Curtailments in 1934 working funds	- 9,816
Further reduction in working funds for 1935 ($9,512 for organic insecticides)	- 9,512
5% salary restoration	+ 4,432
	- 21,643

(2) A reduction of $9,512 in the working funds for 1935 for organic insecticides investigations will necessitate the discontinuance of work and the closing of the laboratories at Whittier, California, and at College Park, Maryland. At Whittier, work in cooperation with the Bureau of Entomology has been under way since 1930 to study more effective ways of controlling red scale on citrus fruit by fumigation. At College Park, studies are being conducted on new synthetic organic insecticides.

Work Done Under This Appropriation

The work under this appropriation is carried on to develop new materials that are more effective in destroying or repelling injurious insects and fungi and in preventing or mitigating their attacks, that are cheaper, less hazardous to operators and less poisonous to those eating sprayed fruits and vegetables, and that are less injurious to vegetation than the insecticides and fungicides now in use; to improve existing insecticides and fungicides; to study their physical and chemical properties so that they may be more effectively employed; to devise cheaper methods of manufacturing them; to originate and improve methods of analyzing them; to compile and disseminate all pertinent information regarding them; and to determine the most effective chemical means of removing harmful spray residues from fruits and vegetables that have been treated with compounds containing arsenic, lead, copper, fluorine, nicotine, or other insecticidal and fungicidal material.

Field laboratories for insecticides work are located at Wenatchee, Washington; Whittier, California; Wooster, Ohio; and College Park, Maryland.

Close cooperation is maintained with the Bureau of Entomology and the Bureau of Plant Industry.

Emergency Funds Applicable Under This Heading

An allotment of $1,200 has been made by the Agricultural Adjustment Administration, in the interest of extension of markets and reduction of surplus tobacco products, for special nicotine investigations for that Administration.

(e) Plant Dust Explosions

Appropriation, 1932	$ 36,500
Appropriation, 1933	36,190
Appropriation, 1934	33,880
Estimated Obligations, 1934	30,000
Budget Estimate, 1935	31,612
Increase, Budget 1935, compared with Estimated Obligations, 1934. . . .	1,612

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Plant Dust Explosions	$ 29,803	$30,000	$ 31,612	+ $ 1,612	- - -
Unobligated:					
Salary reduction	3,235	2,630	- - -	- - -	- - -
Working funds reduction	3,152	1,250	- - -	- - -	- - -
Total Appropriation...	36,190	33,880	31,612	- 2,268 (1)	

(1) This reduction of $2,268 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.	- $2,630
Curtailments in 1934 working funds	- 1,250
5% salary restoration	+ 1,612
	- 2,268

Work Done Under This Appropriation

Work under this appropriation consists of studies of dust explosions and explosion hazards in grain-handling operations and in industrial plants handling products of agricultural origin; experimental chemical research and development work on the prevention of dust explosions and resulting fires, including fires in cotton gins, cotton oil mills, and grain elevators; and the practical application of the results of the research. Special attention is being given to the development of safety codes for dust explosion prevention. Active cooperation is carried on with industrial companies, insurance organizations, State commissions, fire prevention associations, safety organizations, and other interested agencies. These investigations are directly concerned with the saving of human life and property. Over 1,250,000 persons are normally employed in about 28,000 industrial establishments handling products of agricultural origin where dust explosions constitute a hazard. With practically every new development for the utilization of agricultural products, it is necessary to work out new methods for protection from dust explosions.

Emergency Funds Applicable
Under This Heading

Under the National Industrial Recovery Act, an allotment of $150 has been made for painting the Dust Explosion building at Arlington Farm.

Under the Civil Works program, $1,550 has been allotted for the construction of a testing chamber, dust bin, and other improvements to the Dust Explosion building.

(f) Naval Stores Investigations

Appropriation, 1932	$ 72,306
Appropriation, 1933	68,406
Appropriation, 1934	65,106
Estimated Obligations, 1934	55,000
Budget Estimate, 1935	57,165
Increase, Budget 1935, compared with Estimated Obligations, 1934	2,165

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Composition, properties and uses of naval stores.....	$ 16,240	$ 13,500	$ 14,110	+ $ 610	- - -
Production, Processes and Equipment (Naval Stores Station, Lake City, Fla.)	42,227	41,500	43,055	+ 1,555	- - -
Total.....	58,467	55,000	57,165	+ 2,165	- - -
Unobligated:					
Salary reduction.....	3,874	3,268	- - -	- - -	- - -
Working funds reduction	6,065	6,838	- - -	- - -	- - -
Total Appropriation...	68,406	65,106	57,165	- 7,941 (1)	

(1) This reduction of $7,941 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 3,268
Curtailments in 1934 working funds	- 6,838
5% salary restoration	+ 2,165
	- 7,941

Change in Language

It is recommended that the following wording be deleted from this appropriation paragraph:

> "of which $10,000 shall be available for continuing the establishment of a field laboratory for naval stores research work in the pine regions of the South: Provided, That not more than $10,000 of this appropriation shall be expended for the erection of buildings."

Construction work at this station as originally planned will be completed during the current fiscal year. Funds have been allotted under the National Industrial Recovery Act for this purpose. No portion of the regular appropriation for 1934 will be used for construction work, the entire amount being required for research work at the station.

Work Done Under This Appropriation

The purposes of the work under this appropriation are to improve agricultural-chemical-technological practices, processes, and equipment for the production of turpentine, rosin, and related products so as to prevent deterioration and waste, reduce costs of production, and obtain products of better quality; and to promote the utilization of turpentine and rosin and related products through fundamental studies of their chemical composition and properties, and through applied chemical research to develop processes and equipment for making new and improving established products. These investigations bring greater returns to the turpentine farmer and have a direct bearing on the economic maintenance of the pine forests of the South; they will also help to keep submarginal lands out of other agricultural crops for which they are neither suited nor needed. The recently established naval stores experiment station in the Osceola National Forest affords facilities not available elsewhere for research on the technology of naval stores production in cooperation with the forest management research of the Forest Service.

Emergency Funds Applicable Under This Heading

Under the National Industrial Recovery Act, allotments totaling $27,850 have been made for construction of laboratory and office building, warehouse, platforms, and road at the Naval Stores Station at Lake City, Florida.

Civil Works allotment of $4,524 has been made for road repair, construction of fuel yard, building runways, cutting wood, etc., at the Naval Stores Station.

(g) Fertilizer Investigations

Appropriation, 1932	$370,835
Appropriation, 1933	358,535
Appropriation, 1934	325,000
Estimated Obligations, 1934	265,000
Budget Estimate, 1935	246,071
Decrease, Budget 1935, compared with Estimated Obligations, 1934	18,929

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Catalysts in nitrogen fertilizer investigations.....	$37,566	$31,600	$30,955	+ $ 1,540	-$2,185(2)
Transformation of nitrogen compounds....	38,006	32,000	28,800	+ 1,430	- 4,630(3)
Biochemical and organic nitrogen fertilizer investigations.....	30,435	25,700	25,175	+ 1,250	- 1,775(4)
Physics and chemical fertilizer investigations.....	66,192	55,300	52,100	+ 2,580	- 5,780(5)
Phosphate fertilizer investigations.....	33,611	28,400	18,915	+ 935	-10,420(6)
Potash fertilizer investigations.....	40,038	33,600	32,920	+ 1,630	- 2,310(7)
Concentrated fertilizer investigations....	69,575	58,400	57,206	+ 2,834	- 4,028(8)
Total.....	315,423	265,000	246,071	+ 12,199	-31,128
Unobligated:					
Salary reduction.....	29,469	17,189	- - -	- - -	- - -
Working funds reduction	13,643	42,811	- - -	- - -	- - -
Total Appropriation.....	358,535	325,000	246,071	- 78,929 (1)	

(1) This reduction of $78,929 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$17,189
Curtailments in 1934 working funds	- 42,811
Further reduction in working funds for 1935 ($2,185 for catalysts in nitrogen fertilizer investigations; $4,630 for transformation of nitrogen compounds; $1,775 for biochemical and organic nitrogen fertilizer investigations; $5,780 for physics and chemical fertilizer investigations; $10,420 for phosphate fertilizer investigations; $2,310 for potash fertilizer investigations, and $4,028 for concentrated fertilizer investigations)	- 31,128
5% salary restoration	+ 12,199
	- 78,929

The reduction of $31,128 in the working funds under this item for 1935 will make necessary curtailments and changes as follows:

(2) A decrease of $2,185 for catalysts in nitrogen fertilizer investigations will require suspension of phases of the research work on catalysts relating to production of synthetic nitrogenous material and other fertilizer constituents.

(3) A decrease of $4,630 for transformation of nitrogen compounds will require a modification of the activities on the ammoniation of peat to develop a suitable organic fertilizer from a pilot plant, to a smaller scale operation involving less expenditure in equipment, supplies, and operating expenses. Coordinate problems involved in commercial application, such as recovery of unreacted ammonia, will be deferred or studied on a small scale.

(4) A decrease of $1,775 for biochemical and organic research will make necessary suspension of investigations on chlorophyll, including the production of chlorophyll on a semicommercial scale and cooperative work with universities and other agencies.

(5) A decrease of $5,780 for physics and chemical fertilizer investigations will make necessary discontinuance of high temperature equilibria work on the thermal dissociation of calcium carbonate and other high temperature blast furnace reactions; also the suspension of fundamental work on the activation of nitrogen-hydrogen mixtures by electrons and ions in ammonia synthesis.

(6) A decrease of $10,420 for phosphate fertilizer investigations will make necessary discontinuance of the five-ton pilotplant blast furnace used for the production of phosphoric acid from the var-

ious types of phosphate rock; also the closing of control and analytical laboratories.

(7) A decrease of $2,310 for potash fertilizer investigations will require the conducting on a reduced scale of the researches on chemical principles as applied to the extraction of potash from raw materials now studied with a view to the establishment of a fertilizer industry in the Rocky Mountain States.

(8) A decrease of $4,028 for concentrated fertilizer investigations will make necessary the suspension of work on the development of new and improved materials for the preparation of concentrated fertilizer materials and the curtailment of (a) investigation of new and improved methods of fertilizer mixtures; (b) study of chemical reactions in fertilizer mixtures; (c) investigations of methods for increasing the efficiency of fertilizers by improving their chemical and physical properties; (d) development of formulas of concentrated fertilizer mixtures of satisfactory physiological quality, and (e) compilation of fertilizer statistics.

Work Done Under This Appropriation

Work under this appropriation consists of investigations on nitrogen, phosphate, and potash fertilizers in relation to problems of reduction in cost of production, development and conservation of domestic sources, and improvement in quality of products to insure farmers in all sections of the country an adequate and continuous supply of satisfactory fertilizer materials at the lowest possible cost. The farmers of the United States normally use from 7,000,000 to 8,000,000 tons of commercial fertilizer annually at a cost of approximately $250,000,000. The research is directed toward the development of more efficient and economical manufacturing processes; production of new fertilizer compounds; improvement in the quality of fertilizer materials to give maximum beneficial effects to crops and soils and improvement in the physical condition to facilitate handling and distribution in the field; increasing the concentration of fertilizers to reduce transportation costs; utilization of new sources of raw materials, of low-grade materials formerly wasted, and of by-products from other industries; and development of domestic deposits of fertilizer minerals in different sections of the country to make them available for use to the agricultural sections near which they occur. The solution of these main problems also calls for the use of much fundamental chemical and physical data which can be developed only by a comprehensive research program.

Emergency Funds Applicable Under This Heading

Civil Works allotment of $8,260 has been made for maintenance work, including repairs to laboratory equipment and to outlying temporary buildings, and general cleaning work on grounds and buildings.

(h) Soil Chemical and Physical Investigations

Appropriation, 1932	$61,420
Appropriation, 1933	61,190
Appropriation, 1934	56,545
Estimated Obligations, 1934	45,500
Budget Estimate, 1935	47,879
Increase, Budget 1935, compared with Estimated Obligations, 1934 . . .	2,379

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Soil Chemical Investigations.....	$37,740	$34,345	$36,142	+ $1,797	- - -
Soil Physical Investigations	14,431	11,155	11,737	+ 582	- - -
Total	52,171	45,500	47,879	+ 2,379	- - -
Unobligated:					
Salary reduction.....	8,155	2,491	- - -	- - -	- - -
Working funds reduction	864	8,554	- - -	- - -	- - -
Total Appropriation ...	61,190	56,545	47,879	- 8,666 (1)	

(1) This reduction of $8,666 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$2,491
Curtailments in 1934 working funds	- 8,554
5% salary restoration.	+ 2,379
	- 8,666

Work Done Under this Appropriation

Work under this appropriation includes studies of those chemical and physical properties of soils which determine their degree of resistance to the erosive action of rain wash; the determination of the quantity and quality of both the inorganic and organic constituents of the great soil group; and a study of the effect of these fine particles upon the response

of the different soil types to fertilizer treatments. These researches provide the basic information necessary for the evaluation of the different soil groups in terms of their potential productivity and thus lay the foundation for the development of a sound land-use policy in connection with the agricultural adjustment program. In addition to these researches, the work includes all of the analyses for the soil survey and a large number of routine examinations and tests of soil and soil materials for other governmental agencies, the results of which are necessary for the conduct of their work. No other agency is in position to carry out these researches which require sustained study over a period of years or to perform the routine services with which this division is charged. The development of new and improved methods and more efficient equipment during the past few years has resulted in economies of operation that have made it possible to keep pace with the increasing demand for service without a corresponding increase in operating costs.

Emergency Funds Applicable Under This Heading

Under the Civil Works program, $660 has been allotted for minor laboratory work in the soil laboratories.

(i) Soil Survey Investigations

Appropriation, 1932	$321,705
Appropriation, 1933	307,705
Appropriation, 1934	275,000
Estimated Obligations, 1934	240,000
Budget Estimate, 1935	150,908
Decrease, Budget 1935, compared with Estimated Obligations, 1934	89,092

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Detailed and Reconnaissance Surveys	$201,786	$ 178,735	$ 102,030	+ $ 4,540	-$81,245(2)
Inspection and Correlation	31,032	29,720	22,035	+ 840	- 8,525(3)
Map Drafting	34,020	31,545	26,843	+ 1,083	- 5,785(4)
Total	266,838	240,000	150,908	+ 6,463	- 95,555
Unobligated:					
Salary reduction	34,482	13,264	- - -	- - -	- - -
Working funds reduction	16,385	21,736	- - -	- - -	- - -
Total Appropriation....	307,705	275,000	150,908	- 124,092 (1)	

(1) This reduction of $124,092 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$13,264
Curtailments in 1934 working funds	- 21,736
Further reduction in working funds for 1935 ($81,245 for detailed and reconnaissance surveys; $8,525 for inspection and correlation; $5,785 for map drafting).	- 95,555
5% salary restoration	+ 6,463
	-124,092

The reduction of $95,555 in working funds under this item for 1935 includes:

(2) A decrease of $81,245 for detailed and reconnaissance surveys. This decrease will necessitate suspension of cooperative soil survey work in approximately fifteen states, and the curtailment of special services now rendered other Government agencies.

(3) A decrease of $8,525 for inspection and correlation will be coincident with the curtailment of soil survey field work, as indicated in paragraph next above.

(4) A decrease of $5,785 for map drafting contemplates a reduction in the demands on the map drafting section resulting from curtailment of soil survey field work.

Work Done Under This Appropriation

The soil survey reports and maps furnish an inventory of the soil--the most important of all of the natural resources of the United States. The work of the Soil Survey consists of a study of soils in the field with a view to their classification on the basis of their physical characteristics and crop-producing capacity. The soil survey reports and maps furnish the fundamental basis for the development of the land use policy which will serve as a safe guide in the working out of crop adjustment programs. At present the soil survey reports and maps of the Bureau are in constant demand in connection with the emergency activities of the Government, including the work of the Civilian Conservation Corps, the crop adjustment activities, and the subsistence farming program; also in connection with the work of land appraisals for the farm loan banks, mortgage adjustment reappraisals, and the adjustments in land values for taxation purposes. During the past year the Soil Survey has also been called on to make special surveys and soil studies for other Government agencies, including the War Department, the Navy Department, the Indian Service, Reclamation Service, the Civilian Conservation Corps, the Tennessee Valley Authority, and the subsistence farming project.

Emergency Funds Applicable Under This Heading

Civil Works allotments totaling $179,052 have been made for plane table base map work necessary in connection with soil classification. This work is

conducted in selected areas in various States and the allotments by States are as follows:

Arizona.	$10,285
Arkansas	10,285
Florida.	10,285
Georgia.	13,714
Louisiana.	10,285
Mississippi.	10,285
North Carolina . . .	18,857
Oklahoma	17,143
South Carolina . . .	10,286
Tennessee.	18,857
Texas.	27,428
Virginia	11,314
District of Columbia	10,028
	179,052

(j) Soil Microbiology Investigations

Appropriation, 1932	$ 43,320
Appropriation, 1933	43,355
Appropriation, 1934	40,641
Estimated Obligations, 1934	35,000
Budget Estimate, 1935	36,765
Increase, Budget 1935, compared with Estimated Obligations, 1934	1,765

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Soil microbiology investigations	$ 38,677	$ 35,000	$ 36,765	+ $ 1,765	---
Unobligated:					
Salary reduction	3,302	2,580	---	---	---
Working funds reduction	1,376	3,061	---	---	---
Total Appropriation	43,355	40,641	36,765	- $3,876 (1)	

(1) This reduction of $3,876 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$2,580
Curtailments in 1934 working funds	- 3,061
5% salary restoration	+ 1,765
	-$3,876

Work Done Under This Appropriation

Work under this appropriation includes tests and inspection of commercial cultures of legume nodule bacteria and of soil inoculants to insure that cultures sold to farmers are true to type, viable, and efficient for the purpose claimed. Research is also conducted on legume nodule bacteria in connection with the efficiency of strains, influences which alter their quality or interfere with their function, methods of practical application, and the development of special strains for all legume crops including those newly introduced into this country. Since the proper nitrogen fixing bacteria must be applied to legume seed wherever the growing of a particular crop is extended into a new area, a tested collection of strains is maintained to aid in the establishment of new crops in cooperation with the Bureau of Plant Industry, State experiment stations, county agents, and individual farmers. Other researches cover the decomposition of green manures, cover crops, and crop residues; the effect of soil reactions and soil treatments on the microorganisms and their activity in the soil; studies of the organisms responsible for the decay of soil organic matter; and studies on the use of fungi and bacteria for determining fertilizer needs of soil. These investigations are planned to obtain a better understanding of the nitrogen economy of the soil and the relation of the micropopulation of the soil to different manuring and cropping systems, with the view to increasing the efficiency of farm practices.

(k) Soil Fertility Investigations

Appropriation, 1932	$ 220,080
Appropriation, 1933	206,980
Appropriation, 1934	195,556
Estimated Obligations, 1934	155,000
Budget Estimate, 1935	154,193
Decrease, Budget 1935, compared with Estimated Obligations, 1934	807

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Soil Fertility Investigations	$ 127,685	$ 114,170	$ 111,436	+ $5,066	$ -7,800(2)
Cotton Root-rot Investigations	35,353	33,350	34,924	+ 1,573	---
Soil Improvement -- Sandhill Station	8,944	7,480	7,833	+ 354	---
Total	171,982	155,000	154,193	+ 6,993	-7,800
Unobligated:					
Salary reduction	14,772	10,513	---	---	---
Working funds reduction	20,226	30,043	---	---	---
Total Appropriation	206,980	195,556	154,193	- 41,363 (1)	

(1) This reduction of $41,363 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	- $10,513
Curtailments in 1934 working funds	- 30,043
Further reduction in working funds for 1935 ($7,800 for soil fertility investigations).....	- 7,800
5% salary restoration	+ 6,993
	- 41,363

(2) The reduction of $7,800 in the working funds for 1935 under soil fertility investigations will make necessary curtailment of the pecan soil and fertilizer work now centered at Albany, Georgia, and Shreveport, Louisiana, and the closing of one of these laboratories.

Work Done Under This Appropriation

Work under this appropriation consists of studies of soil fertility and fertilizer problems to develop an economical program of fertilizer practice which will enable the farmer to reduce his cost of production and produce crops of

better quality. The work involves the study of the fertilizer requirements of different soil types for different crops and of the influence of the various fertilizer elements on the growth, maturity, yield, quality, and disease resistance of crops; biochemical soil and fertilizer studies on the relation of organic matter, green manure, and crop residues to soil fertility; cotton root-rot soil and fertilizer studies; and soil improvement investigations in the sandhill section of the South. Knowledge of inherent soil fertility and the relative suitability of specific soil types to specific crops, as well as knowledge of the particular fertilizers required to supplement natural soil fertility for certain crops, are important factors in reducing cost of crop production. Moreover, every acre of crop soil is subject to depreciation and decreased efficiency if proper methods of maintenance are not followed, and this is a factor in conservation of invested capital as well as in cost of production.

Field laboratories have been established at Houma and Shreveport, La., Orlando, Fla., Albany, Ga., Columbia, S.C., Chadbourn, N.C., Austin, Tex., Scottsbluff, Nebr., and Fargo, N.Dak. The work is carried on in cooperation with State Experiment Stations and leading farmers in those States and in Maine, New York, New Jersey, Pennsylvania, Virginia, South Carolina, Ohio, Michigan, Minnesota, Iowa, South Dakota, Wyoming, Montana, Idaho, Colorado, Utah, and California.

Emergency Funds Applicable Under This Heading

Allotments totaling $1,075 have been made under the National Industrial Recovery Act for physical improvements (painting, road-repair, etc.) at the field laboratories at Houma, Louisiana; Columbia, South Carolina; and Arlington Farm, Virginia.

Civil Works allotments totaling $5,340 have been made for maintenance and repair work at the field laboratories at Houma and Shreveport, Louisiana; Albany, Georgia; Orlando, Florida; Chadbourn, North Carolina; and Austin, Texas.

Emergency Conservation Funds

An allotment of $35,000 has been made to the Bureau of Chemistry and Soils from the Emergency Conservative Funds for investigations and surveys relating to grain quality in marginal areas. It is estimated that $19,790 will be expended during the fiscal year 1934 and $15,210 during 1935.

Authorization Covering Purchase of Passenger-carrying Vehicles

A reduction from $650 to $590 is submitted in the passenger-carrying vehicle authorization for 1935. The car to be purchased is for the purpose of replacing an old car.

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NOTE: Also see Miscellaneous Items for "Work for other Departments" and "Soil Erosion Investigations."

BUREAU OF PUBLIC ROADS

(a) Federal Aid Highway System

Appropriation, 1932	$175,000,000.
Appropriation, 1933	100,000,000.
Appropriation, 1934	35,000,000
Budget Estimate, 1935	11,000,000.
Budget, 1935 compared with appropriation, 1934	-24,000,000. (a)

(a) See explanation in paragraph for "Work Done Under This Appropriation."

Change In Language

The following language is being omitted as the latest Congressional authorization for regular funds was for the fiscal year 1933 and the provision has been complied with:

"After deducting $15,840,743.86 in making the apportionment of said authorization to the States, in accordance with the Act of December 20, 1930 (46 Stat., p. 1031)."

The following proviso is being omitted as it is permanent legislation: "That hereafter in the administration of the Federal Highway Act and Acts amendatory thereof or supplementary thereto, the first paragraph of Section 9 of the Act of November 9, 1931, shall not apply to publicly owned toll bridges or approaches thereto, constructed and operated by the highway department of any State, subject, however, to the condition that all tolls received from the operation of any such bridge, less the actual cost of operation and maintenance, shall be applied to the repayment of the cost of its construction, and when the cost of its construction shall have been repaid in full, such bridge thereafter shall be maintained and operated as a free bridge."

Work Done Under This Appropriation

Under this appropriation the Federal Government cooperates with the several States and the Territory of Hawaii in improving the Federal Aid Highway System as provided in the Federal Highway Act of November 9, 1921 and subsequent amendments. The Federal Aid Highway System is often referred to as the 7 percent system because the mileage in each State was initially limited to 7 percent of the total highway mileage in such State. The routes in the system were selected by the States and approved by the Secretary of Agriculture. On June 30, 1933, the system included 206,277 miles of the principal highways of the country and connected all the principal cities, county seats and other market centers in the United States. About 107,869 miles of this system have been improved with Federal aid and more than 12,906 miles additional were under construction or approved for

construction on June 30, 1933. The initiation of and immediate supervision of the construction of Federal aid projects is under the State Highway Departments with engineers of the Bureau of Public Roads making frequent inspections and approving all work from the inception of a project until its completion.

This cooperative highway work was started by the Act of July 11, 1916. The authorization of $125,000,000 for the fiscal year 1933 is the last regular authorization to date. The apportionment of the 1933 authorization was made October 15, 1931 and became available immediately for new work. A deduction of $15,840,743.86 was made in the 1933 apportionment to States on account of funds advanced to the States under the $60,000,000 emergency advance appropriation carried in the Act of December 20, 1930.

There remains an unappropriated balance of $16,559,256.14 in the authorization. On July 1, 1933, there was an available cash balance of $50,910,371. It is estimated that this amount will be required to make payments during the fiscal year 1934 and that an additional $11,000,000 will be required to cover the necessary expenditures during the fiscal year 1935. On July 1, 1933, there remained a balance of Federal Aid funds apportioned to the States of $15,190,331, which had not been obligated through the approval of specific projects. By November 1, 1933, this unobligated balance had been reduced to $5,884,022. A considerable portion of the Federal Aid funds obligated during this four-months period was set up to Public Works projects in accordance with Section 204, paragraph (b), which provides in part that the funds authorized for apportionment to the States in this section "may also be used in lieu of State funds to match unobligated balances of previous apportionments of regular Federal-aid appropriations."

Emergency Funds Applicable Under This Heading

National Industrial Recovery, Highway Funds, 1933-35

Section 204 of the National Industrial Recovery Act authorized the President to make grants to the highway departments of the several States of not less than $400,000,000 for emergency construction of public highways in accordance with the provisions of the Federal Highway Act, as amended and supplemented. The Act provided for three classes of projects, as follows:

(1) Projects located on Federal aid highway system outside of municipalities, which are identified as U. S. Public Works NRH Projects.

(2) Projects located on extensions of the Federal aid highway system into and through municipalities are designated as U. S. Public Works NRM Projects.

(3) Projects located on secondary or feeder roads, which are known as U. S. Public Works NRS Projects.

On January 1, 63.9 per cent of the funds so apportioned to the States had been set up to approved projects. On that date the approved program was made up of 5,287 projects, of which 4,494 had been placed under contract or approved for force account work, taking up 54.6 per cent of the funds. The approval of further projects taking up the remaining balance of funds is progressing rapidly.

Following is a statement of the apportionment of these funds by States:

State	Total Apportionment
Alabama	$ 8,370,133
Arizona	5,211,960
Arkansas	6,748,335
California	15,607,354
Colorado	6,874,530
Connecticut	2,865.740
Delaware	1,819,088
Florida	5,231,834
Georgia	10,091,185
Idaho	4,486,249
Illinois	17,570,770
Indiana	10,037,843
Iowa	10,055,660
Kansas	10,089,604
Kentucky	7,517,359
Louisiana	5,828,591
Maine	3,369,917
Maryland	3,564,527
Massachusetts	6,597,100
Michigan	12,736,227
Minnesota	10,656,569
Mississippi	6,978,675
Missouri	12,180,306
Montana	7,439,748
Nebraska	7,828,961
Nevada	4,545,917
New Hampshire	1,909,839
New Jersey	6,346,039
New Mexico	5,792,935
New York	22,330,101
North Carolina	9,522,293
North Dakota	5,804,448
Ohio	15,484,592
Oklahoma	9,216,798
Oregon	6,106,896
Pennsylvania	18,891,004
Rhode Island	1,998,708
South Carolina	5,459,165
South Dakota	6,011,479
Tennessee	8,492,619
Texas	24,244,024
Utah	4,194,708
Vermont	1,867,573
Virginia	7,416,757
Washington	6,115,867
West Virginia	4,474,234
Wisconsin	9,724,881
Wyoming	4,501,327
Dist. of Columbia	1,918,469
Hawaii	1,871,062
Reserved for administration and engineering	6,000,000
Total apportioned...	400,000,000

(b) Public Lands Highways - Emergency Construction -(1931-1934)

The schedule contained in the Budget shows the obligations during 1933 and estimated obligations during 1934, under this special appropriation. No expenditures are contemplated during the fiscal year 1935.

(c) Public Lands Highways - Emergency Construction -(1933-1935)

Continuation of the language of this item is necessary in order to make available until June 30, 1935, the unobligated balance (estimated at $40,000) of the $2,000,000 appropriated by the Emergency Relief and Construction Act, approved July 21, 1932, for roads on unappropriated or unreserved public lands, non-taxable Indian lands, and so forth. Continuation of availability of this appropriation is necessary in order to provide for authorized obligations which may not be consummated prior to June 30, 1934, and for supervision of work which will carry over into the fiscal year 1935.

(d) Flood Relief, Georgia and South Carolina (1931-1934)

The schedule submitted in the Budget shows obligations during 1933 and estimated obligations during 1934 under this appropriation. No expendutires are contemplated during the fiscal year 1935.

(e) Flood Relief, Alabama (1930-1934)

The schedule submitted in the Budget shows obligations during 1933 under this appropriation. No expenditures are contemplated during the fiscal year 1935.

(f) Flood Relief, Florida (No Year)

The schedule submitted in the Budget shows obligations during 1933 under this appropriation. No expenditures are contemplated during the fiscal year 1935.

(g) Federal-Aid Highway System, Advances to States, Emergency Construction (Act of July 21, 1932)

The language of the paragraph is being omitted from the Budget for 1935, as the full authorization of $120,000,000 was obligated during the fiscal year 1933.

(h) Mount Vernon Memorial Highway (No Year)

The schedule submitted in the Budget shows obligations during 1933 and estimated obligations during 1934 under this appropriation. No expenditures are contemplated during the fiscal year 1935.

Authorization Covering Purchases of Passenger Carrying Vehicles

Continuation of the authorization for expenditure of not to exceed $45,000 for purchase of passenger carrying vehicles is recommended in order to permit replacement by exchange of old automobiles now in use in the field service of the Bureau, as set forth in detail in the Budget Schedules.

Emergency Funds Applicable Under This Heading

(Public Lands Highways)

National Industrial Recovery

Under Section 205 of the National Industrial Recovery Act, $5,000,000 of Public Works funds was transferred to the Department of Agriculture for the Bureau of Public Roads for use "in the survey, construction, reconstruction, and maintenance of main roads through unappropriated or unreserved public lands, non-taxable Indian lands, or other Federal reservations other than the forest reservations." In accordance with the terms of the Federal Highway Act, these funds were apportioned among those States in which the specified public lands exceeded 5 per cent of their area.

Following is a statement of the apportionment of these funds by States:

Arizona	748,310
California	475,740
Colorado	176,751
Idaho	265,590
Montana	263,230
Nevada	1,129,958
New Mexico	396,203
North Dakota	63,739
Oklahoma	45,517
Oregon	335,141
South Dakota	95,691
Utah	556,699
Washington	64,780
Wyoming	382,651
Total	5,000,000

(Work Relief Highways)

National Industrial Recovery

Because of acute unemployment conditions in Florida, Colorado, Kansas, New Mexico, North Dakota, Oklahoma, South Dakota, Texas and Wisconsin, in sections which had been adversely affected either through unusual storm damage or extreme drouth conditions, an allotment of funds was made by both the Public Works Administration and the Federal Emergency Relief Administration to provide employment on highway projects in the stricken areas. Specific highway projects were developed in the special areas by the State highway departments, with the approval of the Bureau of Public Roads. The labor is provided and paid for by the Relief Administration; the work being carried forward under the immediate supervision of the State highway departments. Reimbursement is made to the State highway departments from the Public Works funds transferred to the Department of Agriculture for the Bureau of Public Roads in an amount not exceeding 30 per cent of the cost of labor and materials entering into the work.

Up to January 1, a total of $24,770,000 had been allotted for these work relief highway projects. Of this amount $17,339,000 was made available from Emergency Relief funds and $7,431,000 from Public Works funds.

The detail of these allotments, by States, is as follows:

NATIONAL RECOVERY WORK RELIEF PROJECTS
APPROVED BY THE PUBLIC WORKS ADMINISTRATION

As of November 1, 1933

State	Federal emergency relief funds	30% grant under Sec. 203 of Act of June 16, 1933	Total
Colorado	420,000	180,000	600,000
Florida	700,000	300,000	1,000,000
Kansas	1,470,000	630,000	2,100,000
New Mexico	679,000	291,000	970,000
North Dakota	2,100,000	900,000	3,000,000
Oklahoma	1,330,000	570,000	1,900,000
South Dakota	2,310,000	990,000	3,300,000
Texas	6,230,000	2,670,000	8,900,000
Wisconsin	2,100,000	900,000	3,000,000
Total	17,339,000	7,431,000	24,770,000

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BUREAU OF AGRICULTURAL ECONOMICS

(a) General Administrative Expenses

Appropriation, 1932	$290,030
Appropriation, 1933	288,090
Appropriation, 1934	267,750
Estimated Obligations, 1934	219,750
Budget Estimate, 1935	230,370
Increase, Budget 1935, compared with Estimated Obligations, 1934	10,620

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
General Administrative Expenses....	$252,097	$219,750	$230,370	+$10,620	- - -
Unobligated:					
Salary reduction...	23,797	14,145	- - -	- - -	- - -
Working funds reduction.....	12,196	33,855	- - -	- - -	- - -
Total Appropriation..	288,090	267,750	230,370	- 37,380 (1)	

(1) This reduction of $37,380 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$14,145
Curtailments in 1934 working funds	- 33,855
5% salary restoration	+10,620
	- 37,380

Work Done Under This Appropriation

This appropriation provides for the general administration of the work of the entire bureau. It covers the activities of the chief and assistant chiefs of the bureau in formulating general policies to be acted upon by the various divisions of the bureau, as well as the direction and general supervision of all of the research, service and regulatory work. The appropriation also covers the various service units connected with the business administration of the bureau. The problems with which the bureau has to deal have been greatly increased by the recovery program. The burden is particularly heavy on the administrative office since much additional work is necessary in furnishing assistance to the National Recovery Administration, the Federal Relief Administration, the Agricultural Adjustment Administration and various other Federal and State agencies and others interested in the agricultural situation.

(b) Farm Management and Practice

Appropriation, 1932	$480,760
Appropriation, 1933	395,467
Appropriation, 1934	375,000
Estimated Obligations, 1934	297,030
Budget Estimate, 1935	250,193
Decrease, Budget 1935, compared with Estimated Obligations, 1934	46,837

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Agricultural Finance	$60,525	$60,140	- - -	- - -	-$60,140(2)
Land Economics and Land Utilization	92,367	85,190	$88,583	+ $3,393	- - -
Farm Population and Rural Life	21,840	13,000	13,390	+ 390	- - -
Farm Management and Costs	156,794	138,700	148,220	+ 9,520	- - -
Total	331,526	297,030	250,193	+ 13,303	- 60,140
Unobligated:					
Salary reduction	36,219	21,476	- - -	- - -	- - -
Working funds reduction	27,722	56,494	- - -	- - -	- - -
Total Appropriation	395,467	375,000	250,193	- 124,807 (1)	

(1) This reduction of $124,807 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$21,476
Curtailments in 1934 working funds	- 56,494
Further reduction in working funds for 1935 (Elimination of project covering research on Agricultural Finance - Farm Credit, insurance and taxation)	- 60,140
5% salary restoration	+ 13,303
	-124,807

(2) The decrease of $30,140 in working funds for 1935 will result in the elimination of the project for agricultural finance. This will make it necessary to discontinue those phases of the work of the bureau which relate to the fields of agricultural credit and taxation. Research on farmer's insurance problems will also be discontinued.

The positions of 25 employees have been dropped from the 1935 estimates and other objects of expenditure have been reduced by $3,485.

Work Done Under This Appropriation

The economic research work of the bureau dealing particularly with production problems is carried on very largely under this appropriation. The work aims to help the individual farmer to organize and operate his farm for greater profit. In order to do this, however, it is necessary to study agriculture as a whole, consequently, this work is closely coordinated with all of the other activities of the bureau. Studies are conducted to determine the types of farming in various geographical units and the factors which shape such types. Where it appears that adjustments can be made to advantage these are pointed out. Work is carried on to determine the most effective form of organization of farms, including size, crops and livestock grown, financial and labor organizations, and other matters concerning the farm as an economic producing unit. Costs of production are studied and various methods of operation are compared with regard to their effect on costs and returns.

Studies are being made of present uses of land for agriculture; land resources with reference to their possibilities for future use for crops, pasture, and forests, trends in production and consumption, and probable future need for farm land. Cooperative work is being done on outlining economic programs for adjustments in the use of land. Assistance is given in encouraging the diversion of land unsuitable to agriculture into other uses for which it is economically better fitted and directing agricultural expansion only in those areas which are best adapted to farming. The studies in land values show the trend of such values in various parts of the country, the influences that affect the trends, and lay the groundwork for estimating future trends.

Studies are made of composition and changes in the rural populations including movement of population to and from farms, rural community organizations and institutions, and the social and economic factors involved in expenditures of farm families for living purposes.

Through the credit studies, information is obtained and made available on amounts, distribution, and trends of farm-mortgage debt, territorially and by tenure of farms, agencies or sources of farm-mortgage credit; prevailing costs and other terms and conditions of loans from each source, factors affecting terms and conditions of production and marketing credit as well as of mortgage credit; influences of monetary policies upon supply and cost of credit for agriculture; the place of merchant credit in farm finance; the relation of types of farming to the supply of production credit; causes of difficulty experienced by rural credit institutions; and the practicability of more general

supplementing local bank credit, which in many parts of the country has broken down, by specialized credit agencies such as agricultural credit corporations and livestock loan companies. These studies contribute vital information for the Department's analyses of the agricultural situation and provide bases for bringing about necessary adjustments.

Information on farm taxation is assembled showing amounts and trends of taxes on farm property, sources of Governmental revenue in rural areas, purposes for which the farmers' "tax dollar" is spent, relation of farm taxes to farm income, farm tax delinquency, and possible farm tax reductions through simplification of local Government. Farm taxation has an important relation to land utilization and is of vital interest at the present time in the Department's program for bringing about better utilization of our land resources. Results of studies in farm taxation are especially useful to farm organizations, legislative committees and others in planning programs of action to adjust farm tax burdens.

The farm-insurance studies deal with problems of insurance protection for farmers against loss from fire, windstorm, hail, liability, and other hazards to property and persons on the farm. Special attention is given to the numerous problems that arise in cooperative or mutual farmers' insurance companies, of which there are now about 2,000 in the United States and which include in their aggregate membership, well over half of all farmers in the country.

Cooperative agreements with State agencies in 34 States are now in effect and informal cooperation is maintained with a very large number of public and private agencies.

(c) Marketing and Distributing Farm Products

Appropriation, 1932	$900,000
Appropriation, 1933	812,320
Appropriation, 1934	725,000
Estimated Obligations, 1934	598,471
Budget Estimate, 1935	609,094
Increase, Budget 1935, compared with Estimated Obligations, 1934	10,623

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Marketing Fruits and Vegetables.....	$72,637	$52,000	$53,075	+$2,600	-$1,525(2)
Market Price Trends and Statistical Analyses	97,813	90,823	92,888	+ 4,900	- 2,835(3)
Marketing Livestock and Meats.....	72,815	54,812	54,808	+ 3,166	- 3,170(4)
Marketing Dairy and Poultry Products...	30,795	22,260	23,260	+ 1,200	- 200(5)
Marketing Hay, Feed and Seed.....	54,460	54,512	54,341	+ 2,963	- 3,134(6)
Cotton Handling and Marketing.....	25,728	19,714	20,643	+ 1,129	- 200(7)
Cotton Standards and Testing.....	42,683	41,034	43,032	+ 2,198	- 200(8)
Utilization of Cotton.....	31,043	26,552	27,735	+ 1,283	- 100(9)
Investigation of Cotton Ginning.....	50,009	38,222	40,215	+ 2,093	- 200(10)
Grain Investigation..	81,837	69,382	66,448	+ 4,206	- 7,140(11)
Market Information...	36,305	38,908	40,100	+ 2,251	- 1,059(12)
Outlook Reports.....	100,747	90,152	92,549	+ 5,784	- 3,387(13)
Total.....	696,872	598,471	609,094	+33,773	-23,150
Unobligated:					
Salary reduction.....	71,852	42,037	- - -	- - -	- - -
Working funds reduction	43,596	84,492	- - -	- - -	- - -
Total Appropriation....	812,320	725,000	609,094	- 115,906 (1)	

(1) This reduction of $115,906 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$42,037
Curtailments in 1934 working funds	- 84,492
Further reduction in working funds for 1935 (To be distributed over various projects)	- 23,150
5% salary restoration	+ 33,773
	-115,906

The reduction of $23,150 in working funds for 1935 which will be met by further curtailment of activities and reduction in operating expenditures includes:

(2) A decrease of $1,525 on research on the marketing of fruits and vegetables.

(3) A decrease of $2,835 on market price trends and statistical analysis.

(4) A decrease of $3,170 on marketing livestock and meats.

(5) A decrease of $200 on marketing dairy and poultry products.

(6) A decrease of $3,134 on marketing hay, feed and seed.

(7) A decrease of $200 on cotton handling and marketing.

(8) A decrease of $200 on cotton standards and testing.

(9) A decrease of $100 on utilization of cotton.

(10) A decrease of $200 on investigation of cotton ginning.

(11) A decrease of $7,140 on grain investigation.

(12) A decrease of $1,059 on market information.

(13) A decrease of $3,387 on outlook reports.

Work Done Under This Appropriation

One of the first objects of this research work is to analyze the great volume of statistics gathered largely by the division of crop and livestock estimates, the news services and other activities of the bureau in order to establish the statistical position of each agricultural product. This work is basic to the consideration of any program of adjustment of agricultural production. The data are published in annual outlook reports, in periodic bulletins on the agricultural situation, the price situation, and other releases and is carried direct to the farmer by the farm management and other workers of this bureau and of cooperating agencies.

All of this information is made available to the Agricultural Adjustment Administration and much additional work is being done at the request of that organization.

In addition to the statistical and economic research, the physical problems connected with handling, grading, packing, shipping and marketing of products are studied and recommendations are made for improvements. Numerous laboratory studies are carried on such as spinning and ginning tests of various types and grades of cotton, and milling, baking and other tests connected with the grading of grain. Work is being done to establish additional uses for cotton. Extensive research is carried on concerning problems connected with the grading of farm products. Standardized grades have been prepared for a large number of products and demonstrational work is carried on to educate the producers and the trade in their use. The market news and inspection and grading services are conducted largely on the basis of Federal standards, and the enforcement of the perishable agricultural commodities act is dependent to a large degree on the use of Federal standards since they are used as the basis for contracts. The enforcement of the cotton futures, cotton standards, grain standards and warehouse acts also depend upon the research work carried on under this appropriation. Continuation of the work under this appropriation is of utmost importance in meeting the demand of producers and the trade for information on problems connected with the marketing of farm products.

Cooperative agreements with State agencies in 26 States are now in effect and informal cooperation is maintained with a very large number of public and private agencies.

Branch offices are maintained at Chicago, San Francisco, New Orleans, and Stoneville, Mississippi. Research work is carried on also at branch offices maintained under the service and regulatory activities.

(d) Crop and Livestock Estimates

Appropriation, 1932	$804,120(a)
Appropriation, 1933	785,020
Appropriation, 1934	700,000
Estimated Obligations, 1934	574,890
Budget Estimate, 1935	603,701
Increase, Budget 1935, compared with Estimated Obligations, 1934	28,811

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Crop and Livestock Estimates.....	$636,506	$518,490	$544,634	+ $26,144	- - -
Production and Marketing Statistics.....	69,921	56,400	59,067	+ 2,667	- - -
Total.....	706,427	574,890	603,701	+ 28,811	- - -
Unobligated:					
Salary reduction.....	69,590	38,376	- - -	- - -	- - -
Working funds reduction	9,003	86,734	- - -	- - -	- - -
Total Appropriation.....	785,020	700,000	603,701	- 96,299 (1)	

(1) This reduction of $96,299 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$38,376
Curtailments in 1934 working funds	- 86,734
5% salary restoration	+ 28,811
	- 96,299

(a) Total appropriation for 1932 was $1,187,500, which included Foreign Competition and Demand, subsequently carried as a separate item.

Work Done Under This Appropriation

The work under this appropriation consists of collecting, compiling, analyzing, recording and publishing basic data of a statistical nature, secured largely from primary sources, covering all phases of agricultural production, (both of crops and livestock), stocks, prices and related subjects. This includes estimating acreage, yield per acre and quantity of production of 35 staple and special crops, 22 commercial truck crops, 10 fruit crops; estimates of livestock inventories, i.e., number on farms as of January 1, and annual estimate of livestock production; estimates of livestock products (farm basis) - milk, wool, eggs, etc.; and estimates of farm prices to serve as a basis of evaluating the production of crops, livestock and livestock products and for the construction of index numbers. It also includes the collection and publication of timely information concerning the progress of growing crops, prospective production (forecasts), estimates of stocks of commodities in hands of farmers and first receivers, etc., intentions to plant reports,. forecasts of livestock numbers and many other special reports, the chief purpose of which is to aid farmers in planning their production programs and marketing their products. The information is also extensively used by business and industrial concerns, railroads, banks and students of agricultural problems. The official reports tend to prevent the issuance of false and misleading information from private sources. Most of the information must be collected when available or it is permanently lost. The work has been expanded for the purpose of gathering additional information needed by the Agricultural Adjustment Administration.

Cooperative agreements with State agencies in 34 States are now in effect and informal cooperation is maintained with a very large number of public and private agencies.

Branch offices are maintained at Albany, N.Y., Athens, Ga., Austin, Tex., Boise, Idaho, Boston, Mass., Brookings, S. D., Charleston, W. Va., Cheyenne, Wyo., College Park, Md., Columbia, Mo., Columbia, S. C., Columbus, Ohio, Denver, Colo., Des Moines, Iowa, Fargo, N. D., Gulfport, Miss., Harrisburg, Pa., Helena, Mont., Knoxville, Tenn., Lansing, Mich., Las Cruces, N.Mex., Lincoln, Nebr., Little Rock, Ark., Louisville, Ky., Madison, Wis., Montgomery, Ala., New Orleans, La., Oklahoma City, Okla., Orlando, Fla., Phoenix, Ariz., Portland, Oreg., Raleigh, N. C., Richmond, Va., Sacramento, Calif., Salt Lake City, Utah, Springfield, Ill., St. Paul, Minn., Topeka, Kans., Trenton, N. J., W. Lafayette, Ind.

(e) Foreign Competition and Demand

Appropriation, 1932	$ 383,380
Appropriation, 1933	356,790
Appropriation, 1934	292,870
Estimated Obligations, 1934	217,000
Budget Estimate, 1935	226,590
Increase, Budget 1935, compared with Estimated Obligations, 1934.....	9,590

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Foreign Competition and Demand.....	$ 295,254	217,000	$ 226,590	+ $9,590	- - -
Unobligated:					
Salary reduction.....	22,258	12,480	- - -	- - -	- - -
Working funds reduction.....	39,278	63,390	- - -	- - -	- - -
Total Appropriation.....	356,790	292,870	226,590		- 66,280 (1)

(1) This reduction of $66,280 below the appropriation for 1934 consists of:

Impoundments of 6-2/3% of 15% pay cut	- $12,480
Curtailments in 1934 working funds	- 63,390
5% salary restoration.....	+ 9,590
	- 66,280

Work Done Under This Appropriation

This appropriation covers studies of the agricultural situation in foreign countries as it affects the demand for American agricultural products, and the potential competition of foreign agricultural products with those of the United States. Special legislation has been enacted by Congress providing for the organization of a foreign agricultural service. This act provides for the acquiring of information regarding world competition and demand for agricultural products, and the production, marketing and distribution of said products in foreign countries, and the dissemination of this information throughout the United States for the benefit of farmers and others. It provides also for investigation of any economic phase of the agricultural industry and for the demonstration of standards for agricultural products in foreign countries, and other matters.

American agricultural production and trade depend to a large extent upon world conditions. Intelligent planning for the individual farmer, or for agriculture as a whole, is impossible without adequate and reliable information on the trend of foreign competition and on the shifts in foreign demand. Such information is more than ever necessary in a period of world-wide depression and declining trade. Changes of importance to American agriculture are constantly occurring. It is the function of the Foreign Agricultural Service to follow and report on these changes, to anticipate them wherever possible and to indicate their significance.

The Foreign Agricultural Service renders practical assistance in connection with the exportation of agricultural products by furnishing information on world competition and demand conditions. It facilitates the movement of agricultural products abroad by acquainting foreign importing and consuming interests with the official standards.

Export trade in American agricultural products has been adversely affected in recent years by mounting tariffs, import quotas and other barriers to international trade. These barriers have served not only to diminish the outlets for our products but have also served to stimulate production in the importing countries. In addition, competition has been increased by various forms of direct Government aid such as subsidies and export bounties in foreign countries. These developments are of vital significance to American agriculture. It is an important function of the Foreign Agricultural service to study these developments intensively and to analyze their significance to the American farmer. A comprehensive report on this subject was submitted to the Senate in the last session of Congress in response to Senate Resolution 280. It is necessary, however, to continue the work in order to keep in touch with new developments and their possible effect on American agriculture.

Branch offices are maintained at London, England, Berlin, Germany, Belgrade, Yugoslavia, Paris, France, Shanghai, China and Buenos Aires, Argentina.

(f) Market Inspection of Farm Products

Appropriation, 1932	$580,026
Appropriation, 1933	537,796
Appropriation, 1934	500,286
Estimated Obligations, 1934	371,340
Budget Estimates, 1935	389,805
Increase, Budget 1935, compared with Estimated Obligations, 1934	18,465

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Inspection of Fruits & Vegetables.....	$ 254,390	$ 224,940	$ 236,882	+ $ 13,103	- $1,161(2)
Grading of Canned Fruits & Vegetables..	15,567	15,400	16,100	+ 700	- - -
Grading of Dairy & Poultry Products.....	29,429	28,500	29,833	+ 1,333	- - -
Inspection of Hay, Beans, etc.....	45,218	25,000	26,267	+ 1,267	- - -
Grading of Meat.....	24,283	27,000	28,133	+ 1,133	- - -
Grading of Tobacco....	48,756	46,500	48,400	+ 1,900	- - -
Grading of Rice.....	3,635	4,000	4,190	+ 190	- - -
Total.....	421,278	371,340	389,805	+ 19,626	- 1,161
Unobligated:					
Salary reduction.....	49,705	29,578	- - -	- - -	- - -
Working funds reduction.....	66,813	99,368	- - -	- - -	- - -
Total Appropriation...	537,796	500,286	389,805	- 110,481(1)	

(1) This reduction of $110,481 below the appropriation for 1934 consists of:

Impoundments of 6-2/3% of 15% pay cut.....	-$29,578
Curtailments in 1934 working funds.....	- 99,368
Further reduction in working funds for 1935.....	- 1,161
5% salary restoration.....	+ 19,626
	-110,481

(2) The reduction of $1,161 in working funds for 1935 under Inspection of Fruits and Vegetables will be effected in the item for rents by obtaining space in Federal buildings.

Work Done Under This Appropriation

The inspection and grading services of the bureau cover fruits and vegetables (including canned fruits and vegetables), dairy and poultry products, meats, hay, beans, seeds, rice, peanuts, tobacco and other products. This service is permissive in character, the Federal inspector performing the service only at the request of a financially interested party. Certificates are issued which constitute prima facie evidence in the Courts of the United States as to the quality and condition of the shipments inspected. These certificates serve as a basis for trading as well as for the settlement of disputes.

Shippers use the service extensively in making f.o.b. sales to distant buyers, who have shown a preference for standardized products which it would be difficult to obtain without official inspection. Since the passage of the Perishable Agricultural Commodities Act, the inspection certificates have increased in value on account of being received as prima facie evidence in hearings resulting from complaints filed under the Act.

The inspection service plays an important part in marketing American fruits in foreign markets. The British Embargo of 1930 prohibiting the importation of low grade American apples has been made permanent. The Export Apple and Pear Act, approved June 10, 1933, requires that, with certain minor exceptions, all shipments of apples and pears in export must be accompanied by a certificate showing that the shipment meets the minimum quality requirements established by the Secretary of Agriculture for exportation of these commodities. The inspection service conducted under this item serves to enforce that Act. The recent French quarantine, which prohibits the entry into France of apples grown in the United States which are infested with San Jose scale, makes it necessary for shipping point inspectors to examine two per cent of the fruit in each lot concerned before it can receive the French sanitary certificate issued by the Bureau of Plant Quarantine.

The grading of canned fruits and vegetables is of special value to canners who have need of an official determination of quality. It is also used largely by the purchasing agencies of the Government. This project grades samples from lots of canned fruits and vegetables stored by public warehousemen licensed under the United States Warehouse Act. The statement of grade on Federal warehouse receipts is particularly important, as the warehouse receipts are used extensively as collateral for loans by cooperative associations of canners and others.

The service includes the grading of dairy and poultry products in terminal markets and at shipping points for class, grade, quality and condition; supervision of the inspection of dressed poultry for condition and wholesomeness at canning establishments; and the inspection of live poultry for crop and health condition (cooperative work in New York City). The grading service now rendered at a number of important markets is a very essential part of the machinery of distribution as it is the accepted "Official" grading service in these cities.

Hay inspection is being continued. Bean and soybean inspection work has grown rapidly in both producing and consuming districts. Special commendations have been received on the inspection of soy beans for export. The service includes the verification of dealers' records on seed in order that certificates may be issued showing the State of origin. This service makes it possible for farmers to obtain seed which is adapted to their section of the country.

The meat grading service is made available to commercial interests and to purchasing officers for Federal, State and city institutions. In addition, a specialized type of service is rendered at slaughtering and packing establishments by which beef and lamb carcasses are graded and stamped with a roller stamp in such a way that the grade appears on the retail cuts.

The grading service on tobacco is made available on auction markets, to cooperative tobacco growers associations and to tobacco dealers. On auction markets tobacco graders are authorized to inspect the tobacco on warehouse floors previous to sale and to certify U. S. Standard Grades on the sales coupon. The grading service places the farmers on a more even basis with the buyers. The tobacco grading service furnished to cooperative associations consists of inspecting and certifying grades on each farmer's tobacco as delivered to the association, which grade is made the basis for the advance to the growers. This is followed by a reinspection and certification of the tobacco as it goes into the hogshead, the certificates forming the basis of financial arrangments. The tobacco grading service supplied to dealers consists of certifying grade on samples of hogsheads of tobacco intended for export.

The work under the rice grading project consists of conducting rice grading for the benefit of the rice industry in connection with commercial transactions, in rough, brown and milled rice. This work is being conducted under the provisions of joint agreements between this bureau and State Departments of Agriculture in California, Texas and Louisiana. Under these agreements the initial inspections are made by State officials under the supervision of the bureau. Appeals from initial inspections are handled by the bureau direct.

Cooperative agreements with State agencies in 46 States are now in effect and informal cooperation is maintained with a very large number of public and private agencies.

Branch offices are maintained at the following points. At a number of these points the inspectors spend only part time on inspection work, while at others a large staff is employed. Cooperative shipping point inspection work is carried on at many additional points as well as inspection and grading work for other branches of the Government. Albany, N. Y., Atlanta, Ga., Baltimore, Md., Boston, Mass., Buffalo, N. Y., Chicago, Ill., Cincinnati, Ohio, Cleveland, Ohio, Columbus, Ohio, Denver, Colo., Des Moines, Iowa, Detroit, Mich., Duluth, Minn., Fort Worth, Tex., Harrisburg, Pa., Hartford, Conn., Houston, Tex., Indianapolis, Ind., Jacksonville, Fla., Kansas City, Mo., Los Angeles, Calif., Louisville, Ky., Memphis, Tenn., Milwaukee, Wis., Minneapolis, Minn., National Stock Yards, Ill., Newark, N. J., New Haven, Conn., New Orleans, La., New York, N. Y., Norfolk, Va., Omaha, Nebr., Philadelphia, Pa., Pittsburgh, Pa., Portland, Oreg., Providence, R. I., Rochester, N. Y., St. Louis, Mo., Salt Lake City, Utah, San Francisco, Calif., Seattle, Wash., Sioux City, Iowa, Springfield, Mass., Trenton, N. J., Tulsa, Okla., Washington, D. C., Wichita, Kans., and Wilkes Barre, Pa.

(g) Market News Service

Appropriation, 1932	$1,498,020
Appropriation, 1933	1,380,808
Appropriation, 1934	1,300,000
Estimated Obligations, 1934	971,000
Budget Estimate, 1935	1,002,868
Increase, Budget 1935, compared with Estimated Obligations, 1934	31,868

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Market Reports on Livestock, Meats and Wool	$ 445,928	$ 380,630	$ 392,102	+$12,014	- $ 542
Market News Service on Fruits&Vegetables	463,913	390,570	403,674	+ 14,337	- 1,233
Markets News Service on Dairy&Poultry Products	160,996	125,640	130,152	+ 5,224	- 712
Market News Service on Grain,Hay,Feed & Seed	114,025	63,190	65,627	+ 2,437	- - -
Market News Service on tobacco	20,907	10,970	11,313	+ 343	- - -
Total	1,205,769	971,000	1,002,868	+ 34,355	- 2,487(2)
Unobligated:					
Salary reduction	84,908	45,760	- - -	- - -	- - -
Working funds reduction	90,131	283,240	- - - -	- - -	- - -
Total Appropriation	1,380,808	1,300,000	1,002,868	- 297,132 (1)	

(1) This reduction of $297,132 below the appropriation for 1934 consists of:

Impoundments of 6-2/3% of 15% pay cut	- $45,760
Curtailments in 1934 working funds	- 283,240
Further reduction in working funds for 1935	- 2,487
5% salary restoration	+ 34,355
	- 297,132

(2) The reduction of $2,487 in working funds for 1935 will be effected in the item for rents by obtaining space in Federal buildings.

Work Done Under This Appropriation

The market news service covers livestock, meats and wool, fruits and vegetables, dairy and poultry products, grain, hay, feed, seed, tobacco and other products. The service is built largely upon information gathered by the bureau's representatives in large central markets. Offices in the large terminal markets must be maintained in order to gather the information to be distributed to the shipping districts. These markets are connected with leased telegraph wires. The bureau obtains under contract the exclusive use of certain telegraph wires throughout the day, and employs its own telegraphers who transmit the market information over the wires in code and decode the incoming messages. The market reporters are in the markets early in the morning, and report receipts and prices. The information goes over the leased wire to Washington and to other branch offices where it is combined with other reports and released to the public. In addition, telegraph and mail reports are furnished the bureau by common carriers and other reporters, and information with regard to supply and demand conditions in foreign countries is made available through the foreign service of the bureau.

Market conditions and prices are reported covering 24 public livestock markets, direct marketing of hogs in Iowa and Southern Minnesota, direct and contract sales of sheep and lambs in the Western range and Pacific Coast States, 5 of the largest wholesale meat marketing centers and the Boston wool market.

Information is gathered daily relative to receipts, unloads, market prices, and demand for fruits and vegetables in the principal markets and shipping sections of the country, also reports from the common carriers on carlot shipments, diversions and passings. Reports are prepared summarizing the marketing of individual crops in producing sections from which daily market information has been released; and special reports showing unloads of fruits and vegetables in a large number of markets are issued as well as various reviews and summaries relative to the marketing of these commodities.

The statistical information which is compiled and issued by the service is of fundamental importance to the dairy and poultry industries.

The service on grain, hay, feed and seed is National in scope. The information collected from all available sources is analyzed and incorporated in market reviews which are issued at regular intervals.

The market news service on tobacco is carried on through the Washington office and temporary field offices located at markets in tobacco growing districts. The market news reports are issued for each marketing day supplemented by a weekly summary, and contain average prices on each grade of tobacco of which a sufficient volume of sales occurs to afford reliable averages. The service is particularly useful to growers whose tobacco is sold at auction. By comparing prices received with the current average for the same grade of tobacco, they are furnished a basis for accepting the sale or exercising their privilege of rejection.

Cooperative agreements with State agencies in 31 States are now in effect and informal cooperation is maintained with a very large number of public and private agencies.

Branch offices are maintained at Atlanta, Ga., Baltimore, Md., Boston, Mass., Buffalo, N. Y., Casper, Wyo., Chicago, Ill., Cincinnati, Ohio, Cleveland, Ohio, Denver, Colo., Des Moines, Iowa, Detroit, Mich., Fort Worth, Tex., Indianapolis, Ind., Kansas City, Mo., Los Angeles, Calif., Louisville, Ky., Minneapolis, Minn., Nashville, Tenn., National Stock Yards, Ill., New Orleans, La., New York, N. Y., Ogden, Utah, Omaha, Nebr., Philadelphia, Pa., Pittsburgh, Pa., Portland, Oreg., St. Joseph, Mo., St. Louis (South) Mo., St. Paul (South), Minn., Salt Lake City, Utah, San Francisco, Calif., Seattle, Wash., Sioux City, Iowa, and Wichita, Kans. In addition many temporary stations are operated for short periods during the heavy movement of important crops, and information is furnished to State offices for dissemination.

(h) Estimates of Cotton Grade and Staple (Cotton Statistics)

Appropriation, 1932.....	$ 420,000
Appropriation, 1933.....	372,500
Appropriation, 1934.....	350,000
Estimated Obligations, 1934.....	198,000
Budget Estimate, 1935.....	207,174
Increase, Budget 1935, compared with Estimated Obligations, 1934.....	9,174

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Grade and Staple Estimates.....	$ 331,772	$ 198,000	$ 207,174	+ $ 9,174	- - -
Unobligated:					
Salary reduction	22,675	12,220	- - -	- - -	- - -
Working funds reduction	18,053	139,780	- - -	- - -	- - -
Total Appropriation.....	372,500	350,000	207,174	-142,826(1)	

(1) This reduction of $142,826 below the appropriation for 1934 consists of:

Impoundments of 6-2/3% of 15% pay cut.....	- $12,220
Curtailments in 1934 working funds.....	- 139,780
5% salary restoration.....	+ 9,174
	- 142,826

Work Done Under This Appropriation

The purpose of this project is to gather information and prepare estimates periodically concerning the grade and staple of cotton ginned at stated intervals from the crop, the number of bales of each grade and staple carried over from one season to another, and the grade and staple of cotton consumed by domestic mills. Five National reports and five reports for each of the 16 important cotton producing States, besides individual gin reports and a variety of special reports, are regularly issued during the ginning season. The carry-over and consumption reports are issued on a National basis once annually. This work was provided for by Act approved March 3, 1927 (U.S.C. Supp. VI, title 7, secs. 471-476).

For the reason that different qualities of cotton are utilized for different purposes, it is important for both the cotton trade and for the producer of cotton that information be available on not only the number of bales of each quality produced, but also on the number of bales of each quality consumed by domestic mills. To understand properly the significance of this information it is necessary to combine with it information concerning the quantities of each quality of cotton carried over from one season to another, and the volume of each quality of cotton consumed in this country and exported to others. This information has a particular importance at this time owing to intensified competition which American cotton has encountered in recent years in the world market.

Cooperative agreements with State agencies in 7 States are now in effect and informal cooperation is maintained with a very large number of public and private agencies.

Branch offices are maintained at Atlanta, Ga., Dallas, Tex., El Paso, Tex., Austin, Tex., and Memphis, Tenn.

(i) Tobacco Stocks and Standards

Appropriation, 1932.....	$ 25,000
Appropriation, 1933.....	24,400
Appropriation, 1934.....	23,200
Estimated Obligations, 1934.....	15,100
Budget Estimate, 1935.....	15,805
Increase, Budget 1935, compared with Estimated Obligations, 1934.....	705

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Tobacco Stocks and Standards.....	$ 14,936	$ 15,100	$ 15,805	+ $ 705	- - -
Unobligated:					
Salary reduction.....	1,271	939	- - -	- - -	- - -
Working funds reduction.....	8,193	7,161	- - -	- - -	- - -
Total Appropriation....	24,400	23,200	15,805	- 7,395(1)	

(1) This reduction of $7,395 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	- $939
Curtailments in 1934 working funds.....	-7,161
5% salary restoration.....	+ 705
	-7,395

Work Done Under This Appropriation

The Department compiles and publishes quarterly reports covering the quantities of leaf tobacco in the hands of dealers and manufacturers separated as to type and as to certain divisions within the type, as required by the Act approved January 14, 1929 (U.S.C. Supp. VI, title 7, secs. 501-508).

As a basis for these reports, standards have been formulated and further work is being done. Scientific study is being given to the physical changes that take place in tobacco in storage, and the elements of grade in tobacco. These relate particularly to determinations of color, body, elasticity, and the correlations existing between these and other factors with respect to standard grades. Tobacco stocks have an important bearing on prices paid to growers for new stock tobacco, and an accurate and detailed analysis of such stock is essential to protection of the growers' interests. The reports from the basis of studies relating to the prospective market position of different types of tobacco, conducted on behalf of growers by State and Federal agencies. Trade journals give these reports prominence in their publications and they are of especial value to the Agricultural Adjustment Administration.

(j) Enforcement of the Perishable Agricultural Commodities Act

Appropriation, 1932	$ 350,000
Appropriation, 1933	175,100
Appropriation, 1934	165,000
Estimated Obligations, 1934	124,000
Budget Estimate, 1935.....	120,727
Decrease, Budget 1935, compared with Estimated Obligations, 1934	3,273

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Fund
Obligated:					
Enforcement of the Perishable Agricultural Commodities Act	$119,533	$124,000	$120,727	+$6,162	-$9,435(2)
Unobligated:					
Salary reduction.....	11,567	7,837	---	---	---
Working funds reduction	44,000	33,163	---	---	---
Total Appropriation.....	175,100	165,000	120,727		- 44,273(1)

(1) This reduction of $44,273 below the appropriation for 1934 consists of:

Impoundment of 8-2/3% of 15% pay cut.....	- $7,837
Curtailments in 1934 working funds.....	- 33,163
Further reduction in working funds for 1935 ($9,435 transferred to Office of Secretary.....	- 9,435
5% salary restoration.....	+ 6,162
	- 44,273

(2) The reduction of $9,435 in working funds in 1935 is effected by the transfer of five positions to the appropriation "Salaries, Office of the Secretary". These persons are employed in the Solicitor's office upon work connected with the enforcement of the Perishable Agricultural Commodities Act.

Work Done Under This Appropriation

This appropriation covers the administration of the provisions of the Act to suppress unfair and fraudulent practices in the marketing of fresh fruits and fresh vegetables in interstate and foreign commerce, approved June 10, 1930,

(U.S.C. Supp. VI, title 7, Secs. 551-568). This Act requires the licensing of all commission merchants, dealers and brokers, with a few exceptions, and gives the Secretary authority to award reparations and to suspend or revoke the licenses of those who are found to have engaged in certain specified unfair and fraudulent practices in the marketing of these commodities. License fees of $10.00 per annum are charged, and the receipts have exceeded the expenditures each year.

The produce trade has shown an increased inclination to avail itself of the provisions of the Perishable Agricultural Commodities Act. A total of 2,535 complaints were filed compared to a total of 2,482 complaints during the previous year. Approximately 61% of the complaints alleged failure truly and correctly to account either for produce handled on commission or for the price of goods purchased. Rejection of shipments without reasonable cause constituted 21% of the complaints while 17% of the complaints alleged failure of the shipper to make delivery in accordance with the terms of the sale and 1% covered other violations. The informal settling of 80% of the complaints received constituted one of the greatest benefits of the Act.

Public hearings were held in 205 cases during the year as compared with only 176 hearings during the preceding year. The Secretary rendered 371 decisions on complaints as compared with 80 the previous year. Action under the Act is the only recourse of the wronged party in most of these complaints, for the expense of prosecuting a suit in a distant court is usually more than the amount involved. Rejections without reasonable cause have been greatly reduced because of the remedies afforded shippers by this Act.

(k) Enforcement of the U. S. Cotton Futures and the U. S. Cotton Standards Acts.

Appropriation, 1932	$ 236,560 (a)
Appropriation, 1933	289,060
Appropriation, 1934	268,000
Estimated Obligations, 1934	215,500
Budget Estimate, 1935	226,189
Increase, Budget 1935, compared with Estimated Obligations, 1934	10,689

(a) Additional amount of $75,000 was available in 1932 from Second Deficiency Act, 1931.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Administration of the Acts.....	$11,059	$11,920	$12,510	+$ 590	- - -
Future and Spot Market Investigations and Cotton Price Quotations	48,501	33,510	34,507	+ 997	- - -
Preparation and Distribution of Official Cotton Standards....	137,304	108,050	114,519	+6,469	- - -
Supervision of Cotton Classing.....	66,772	62,020	64,653	+2,633	- - -
Total.....	263,636	215,500	226,189	+10,689	- - -
Unobligated:					
Salary reduction.....	23,464	13,838	- - -	- - -	- - -
Working funds reduction	1,960	38,662	- - -	- - -	- - -
Total Appropriation.....	289,060	268,000	226,189	- 41,811 (1)	

(1) This reduction of $41,811 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$13,838
Curtailments in 1934 working funds	- 38,662
5% salary restoration	+ 10,689
	- 41,811

Work Done Under This Appropriation

The Cotton Futures Act requires the Department to establish standards for cotton to determine the grade and staple of cotton delivered in settlement of futures contracts; to supervise the quotations of commercial difference in spot markets designated under the Act, and to disseminate information as to market prices and conditions. This Act was approved August 11, 1916 and amended March 4, 1919 (U.S.C. title 26, secs. 731-752).

The Cotton Standards Act requires the use of the official cotton standards in all interstate and foreign commerce transactions involving American cotton shipped by grade. It gives holders of cotton the privilege of submitting cotton to representatives of the Department for classing, and authorizes the Secretary to examine and license cotton classers. In the administration of the legislation, agreements have been negotiated with the principal foreign cotton trade associations providing for the world-wide use of the cotton standards. This Act was approved March 4, 1923 (U.S.C. title 7, secs. 51-65).

Prices on grades of cotton above and below Middling and on staples longer than 7/8 of an inch as quoted in ten principal spot markets are required, under the U.S. Cotton Futures Act, to be used in the settlement of futures contracts whenever settlement is effected by delivery of cotton. The proper functioning of the cotton futures market necessitates that the price quotations of the designated spot markets shall reflect values of spot cotton of various grades and staples as indicated by actual sales. Active supervision of quotations in the spot markets therefore is essential. Information is disseminated widely among producers concerning the value of cotton of the different qualities.

The official standards are prepared and promulgated under the authority of both Acts. Copies of the standards are sold to the public. The law makes the use of these standards mandatory in interstate and foreign commerce and prohibits the duplicating of the standards or the use of private types in evasion of or substitution for the standards. Constant work is required in connection with the checking and replacement of standards, and in considering proposed changes or modifications.

The classing of spot cotton in the field is supervised by the Board of Cotton Examiners with headquarters at Memphis, Tenn. An important feature of this work is the supervision of licensed cotton classers. The cooperative cotton marketing associations rely upon the licensed classers and upon the supervision of their work in making settlements with their members. An amendment passed by the last session of Congress provides that the Secretary of Agriculture shall extend to cotton growers additional facilities for the classification of cotton.

Branch offices are maintained at Atlanta, Ga., Charleston, S. C., Galveston, Tex., Houston, Tex., Memphis, Tenn., Mobile, Ala., New Orleans, La., New York, N. Y., Norfolk, Va., and Savannah, Ga.

(1) Enforcement of the United States Grain Standards Act

Appropriation, 1932	$860,040
Appropriation, 1933	833,370
Appropriation, 1934	765,000
Estimated Obligations, 1934	617,710
Budget Estimate, 1935	644,397
Increase, Budget 1935, compared with Estimated Obligations, 1934	26,687

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Administration of the Act.....	$661,822	$564,910	$589,030	+$31,083	-$6,963(2)
Inspection Efficiency.	33,294	29,900	31,500	+ 1,600	- - -
Board of Review.....	26,648	22,900	23,867	+ 967	- - -
Total.....	721,764	617,710	644,397	+ 33,650	- 6,963
Unobligated:					
Salary reduction.....	70,793	43,822	- - -	- - -	- - -
Working funds reduction	40,813	103,468	- - -	- - -	- - -
Total Appropriation.....	833,370	765,000	644,397	- 120,603 (1)	

(1) This reduction of $120,603 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$43,822
Curtailments in 1934 working funds	-103,468
Further reduction in working funds for 1935	- 6,963
5% salary restoration	+33,650
	-120,603

(2) The decrease of $6,963 on Administration of the Act is to be effected in the item for rents by obtaining space in Federal buildings.

Work Done Under This Appropriation

The work under this project consists of carrying on the service and regulatory work required by the Grain Standards Act approved August 11, 1916 (U. S. C. title 7, secs. 71-87). The Act provides substantially four things: (1) it authorizes the Secretary of Agriculture to establish official standards of the United States for grain; (2) to license inspectors employed by States, by commercial organizations such as boards of trade, chambers of commerce, etc., to apply the official standards; (3) to supervise the work of such licensed inspectors to the end that there will be a correct and uniform application of the standards, and to entertain appeals from grades assigned by such inspectors in cases where a party to a grain transaction is dissatisfied with the grade originally assigned by the licensed inspector; (4) to conduct hearings and publish his findings in certain cases of interstate grain movement and transactions. This authority is designed to facilitate the orderly marketing of grain and to prevent fraud and misrepresentation.

Official standards have been promulgated for shelled corn, wheat, oats, grain sorghums, feed oats, mixed oats and barley. These standards are in general use throughout the United States and in export commerce and must be used when grain is shipped by grade in interstate commerce. They form the basis of transactions in the various steps from the producer to the consumer. These steps include the country elevator, the interior market, the terminal market, and the distribution to consuming industries in this country as well as to seaboard markets for export. The standards are employed in both cash and futures transactions. They are likewise of importance to grain elevator and warehouse operators, to banking institutions, and to rail and water transportation agencies. Since the grain industry is highly competitive it is very necessary that the inspection service should be efficient and dependable. Grain inspectors and grain supervisors stand as impartial and unbiased arbiters between sellers and buyers and the use of this service has been so well established that it forms a basic feature of the highly organized merchandising practices in both domestic and export commerce.

Branch offices are maintained in Albany, N. Y., Baltimore, Md., Boston, Mass., Buffalo, N. Y., Cairo, Ill., Cedar Rapids, Iowa, Chicago, Ill., (Field and District Headquarters), Cincinnati, Ohio, Denver, Colo., Duluth, Minn., Enid, Okla., Fort Worth, Tex., Galveston, Tex., Great Falls, Mont., Hoboken, N. J., (Substation), Hutchinson, Kans., Indianapolis, Ind., Kansas City, Mo., Los Angeles, Calif., Louisville, Ky., Memphis, Tenn., Milwaukee, Wis., Minneapolis, Minn., Nashville, Tenn., New Orleans, La., New York City, N. Y., Norfolk, Va., Ogden, Utah, Ogdenburg, N. Y., Oklahoma City, Okla., Omaha, Nebr., Peoria, Ill., Philadelphia, Pa., Portland, Oreg., (Field and District Headquarters), St. Joseph, Mo., St. Louis, Mo., San Francisco, Calif., Seattle, Wash., Sioux City, Iowa, South Chicago, Ill., (Substation), Spokane, Wash., Tacoma, Wash., Toledo, Ohio, and Wichita, Kans.

(m) Administration of the United States Warehouse Act

Appropriation, 1932	$312,200
Appropriation, 1933	313,020
Appropriation, 1934	296,220
Estimated Obligations, 1934	261,720
Budget Estimates, 1935	271,383
Increase, Budget 1935, compared with Estimated Obligations, 1934	9,663

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Administration of the Act.....	$ 261,980	$ 261,720	$ 271,383	+$ 10,798	-$1,135(2)
Unobligated:					
Salary reduction.....	19,104	13,982	- - -	- - -	- - -
Working funds reduction.....	31,936	20,518	- - -	- - -	- - -
Total Appropriation.....	313,020	296,220	271,383	- 24,837(1)	

(1) This reduction of $24,837 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	$ - 13,982
Curtailments in 1934 working funds.....	- 20,518
Further reduction in working funds for 1935.....	- 1,135
5% salary restoration.....	+ 10,798
	- 24,837

(2) The decrease of $1,135 in working funds for 1935 will be effected in the item for rents by obtaining space in Federal Buildings.

Work Done Under This Appropriation

This appropriation covers the administration of the provisions of the Warehouse Act, approved August 11, 1916 (U.S.C. title 7, secs. 241-273). Investigational work is conducted to determine whether a product can properly be warehoused under the Act. Regulations are then prepared covering the conditions under which it may be stored. When an application is received for a license, investigations are made to ascertain whether the warehouse is a suitable structure and has the necessary facilities, whether the warehouseman is of good repute, has the proper financial responsibilities and experience, etc. After the license is issued the warehouse is inspected regularly in order to ascertain that the law and regulations are being complied with and that the interests of the partrons are being safeguarded.

The work is of particular importance at this time because of the very large surpluses of many agricultural products and the difficulties encountered in securing adequate credit to carry such surpluses. Cooperative associations, distributors, and others are insisting that their products be stored in Federally licensed warehouses since the receipts from such warehouses provide collateral for loans.

Branch offices are maintained at Atlanta, Ga., Dallas, Tex., Indianapolis, Ind., Kansas City, Mo., Omaha, Nebr., Portland, Oreg., Raleigh, N. C., and Wichita, Kans.

(n) Enforcement of the Standard Container, Hamper and Produce Agency Acts

Appropriation, 1932	$ 45,000
Appropriation, 1933	43,800
Appropriation, 1934	34,120
Estimated Obligations, 1934	27,780
Budget Estimates, 1935	29,035
Increase, Budget 1935, compared with Estimated Obligations, 1934	1,255

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Enforcement of the Standard Container Acts.....	$ 18,294	$ 18,490	$ 19,278	+ $ 788	---
Enforcement of the Produce Agency Act..	9,150	9,290	9,757	+ 467	---
Total.....	27,444	27,780	29,035	+ 1,255	---
Unobligated:					
Salary reduction.....	2,578	1,420	---	---	---
Working funds reduction.....	13,778	4,920	---	---	---
Total Appropriation...	43,800	34,120	29,035	-5,085(1)	

(1) This reduction of $5,085 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	$ -1,420
Curtailments in 1934 working funds	-4,920
5% salary restoration	+1,255
	-5,085

Work Done Under This Appropriation

The standard container acts of 1916 and 1928 fix the sizes for Climax baskets, containers for small fruits and vegetables, standard hampers, round stave and splint baskets. The enforcement of these Acts involves the testing of samples of these containers in order to determine whether they comply with prescribed standards, the collection of evidence, and the preparation, for submission to the Department of Justice, of cases against those who fail to comply with the provisions of the Act. (Acts of August 31, 1916 (U.S.C. title 15, secs. 251-256 and May 21, 1928 - U.S.C. Supp. VI, title 15, secs. 257-257i).

This appropriation also covers the work under the administration of the provisions of the Act entitled "An Act to prevent the destruction or dumping, without good and sufficient cause therefor, of farm produce received in interstate commerce by commission merchants and others and to require them truly and correctly to account for all farm produce received by them," approved March 3, 1927 (U.S.C., Supp. VI, title 7, secs. 491-497.)

Under the Produce Agency Act 165 complaints were received during the past year. These related principally to failures to account correctly to the shipper in consignment transactions in fruits and vegetables, eggs, and dressed poultry. Convictions in Federal courts were obtained on 20 cases. Violations of this Act are also violations of the Perishable Agricultural Commodities Act and are handled under the latter Act, except in cases in which criminal prosecution is necessary.

(o) Completion of Wool Work - War Industries Board

Appropriation, 1932	$ 6,000
Appropriation, 1933	3,000
Appropriation, 1934	2,314
Estimated Obligations, 1934	- - -
Budget Estimates, 1935	- - -

PROJECT STATEMENT

Projects	1933	1934 (Estimates)	1935 (Estimates)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Completion of Wool Work	$ 1,795	- - -	- - -	- - -	- - -
Unobligated:					
Salary reduction.....	140	- - -	- - -	- - -	- - -
Working funds reduction	1,065	2,814	- - -	- - -	- - -
Total Appropriation.....	3,000	2,814	- - -	- 2,814(1)	

(1) Because of adverse decisions in the Federal Courts all work on this appropriation was discontinued and no recommendation is being made for the continuance of the appropriation.

(p) Expenses, Cotton Standards Act - Special Fund (a)

Appropriation, 1932 (actual)	$31,027
Appropriation, 1933 (actual)	36,958
Appropriation, 1934 (estimated).	35,000
Estimated Obligations, 1934	35,000
Budget Estimate, 1935	34,490
Decrease, Budget 1935, compared with Estimated Obligations, 1934	510 (b)

(a) This is not a direct appropriation, expenditures being made from money received as fees for classing cotton and licensing classifiers of cotton under the Cotton Standards Act (U. S. C., title 7, secs., 51-65), etc.

(b) The decrease in the Budget estimate for 1935 below estimated obligations for 1934 represents a reduction in the amount it is estimated will be received as fees in accordance with language contained in the paragraph below - "Work Done Under This Appropriation."

Work Done Under This Appropriation

All money received as fees for classing cotton and licensing classifiers of cotton under the Cotton Standards Act from the sale of copies of the practical forms of the official cotton standards of the United States, and from the sale of cotton purchased for the preparation of such copies and condemned as unsuitable for such use are covered into the Treasury and constitute a special fund, which is used to defray the expenses of classing spot cotton, upon request, by employees of the Department, the licensing of classifiers and the purchase of cotton to be used in preparing copies of the standards.

(q) Wool Marketing Studies

Appropriation, 1932	$ 50,000
Appropriation, 1933	39,300
Appropriation, 1934	30,000
Estimated Obligations, 1934	23,900
Budget Estimate, 1935	25,223
Increase, Budget 1935, compared with Estimated Obligations, 1934. . . .	1,323

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Wool Marketing Studies.	$ 29,053	$ 23,900	$ 25,223	+ $ 1,323	- - -
Unobligated:					
Salary reduction.....	3,018	1,497	- - -	- - -	- - -
Working funds reduction	7,229	4,603	- - -	- - -	- - -
Total Appropriation.....	39,300	30,000	25,223	- 4,777 (1)	

(1) This reduction of $4,777 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $ 1,497
Curtailments in 1934 working funds.	- 4,603
5% Salary restoration..	+ 1,323
	- 4,777

Work Done Under This Appropriation

This appropriation covers marketing investigations relating to methods and practices in preparation, handling, tying, packing and shipping of wool. Standards are prepared and their use explained and demonstrated. Wool scouring and shrinkage investigations are conducted and various problems connected with the handling and marketing of wool are studied. The work is provided for by Act of May 17, 1928 (U.S.C. Supp. VI, title 7, secs. 415b-415d.)

Wool growers and educators are requesting information on the proper methods and practices involved in preparing, grading, handling, storing and other phases of marketing. Investigations in various phases of marketing show that preventable faults in wool handling result in heavy losses annually to the wool industry. These include the use of insoluble branding fluids in marking fleeces and of improper twines in tying as well as lack of care in preparing and handling the fleeces. Investigational work to determine means of correction and educational work to eliminate the objectionable practices are in progress.

The services of specialists are in demand for aiding in the programs and discussing the factors and demonstrating proper methods of wool handling and marketing. There is a demand also for practical forms of the official wool standards which are prepared by the bureau. These standards are also the authority for grade in the present tariff act and in many Government specifications for wool materials. Further investigational work in standardization is in progress as well as technological studies on physical characteristics of the fiber in relation to grade and utilization of wool. Work is being carried on also in cooperation with a number of States on the shrinkage of wool, and a comparative study is being made of domestic and foreign wools.

Authorization covering purchases of Passenger-carrying Vehicles

Continuation of the authorization for expenditure of not to exceed $22,200 for purchase of passenger-carrying vehicles is recommended in order to permit replacement, by exchange, of 56 old automobiles and 3 trucks now in use in the field service of the bureau as set forth in detail in the Budget schedule.

Emergency Funds Applicable Under Bureau of Agricultural Economics

Funds have been made available to the Bureau of Agricultural Economics by the Agricultural Adjustment Administration for the following additional activities undertaken at the request of the Agricultural Adjustment Administration:

Project	Fiscal Year 1934
Collecting additional statistics and information necessary in checking State and county figures, payments, etc. in the cotton control campaign***	$ 30,000
Collecting additional statistics and information necessary in checking State and county figures, payments, etc., in the wheat production control campaign ***	65,000
Preparing county estimates of corn acreage and production, hog numbers, and quantity production of hogs for slaughter. The object of this service will be to check upon the accuracy of the corn-hog reduction contracts of the corn-hog program ***	195,199
Preparation, under the direction of the State Corn-Hog Review Board, of the tabulation analysis of the contracts offered during the corn-hog campaign and the work sheets prepared by non signers, and assistance to farmers in furnishing data required by the contracts, etc. ***	180,910
Furnishing personal services in connection with the Contract Records Unit, involving the services of expert examiners, statistical clerks, typists, etc., involving work incident to handling of cotton contracts for the reduction of acreage	19,265
Checking of cotton and grain warehouses in which stocks of cotton and corn are stored and on which loans have been made through the Commodity Credit Corporation in line with the program of the Agricultural Adjustment Administration ***	13,923
Operating a rice grading office and laboratory at Stuttgart, Arkansas under a marketing agreement with the Southern Rice Milling Industry ***	10,000

Gathering information on the outlets for American Agricultural Products in Europe and the Orient. Commodity specialists are engaged in furnishing the Agricultural Adjustment Administration with information which could not otherwise be obtained and which is needed in carrying out its program	$23,000
Work in connection with rules, regulations and administrative problems in connection with County Wheat Production Control Associations and Regional Offices ***	5,991
Collecting a sample of weekly prices paid by farmers for 55 commodities and from these prices to construct a weekly index of prices paid by farmers ***	6,976
Gathering, compiling and analyzing economic data in connection with the hog and corn adjustment program needed by the Agricultural Adjustment Administration but not now prepared as a regular activity of the Bureau of Agricultural Economics . . .	6,460
Research work on the processing tax and its influence on the consumer, distributor and producer of agricultural products . .	4,590
Collection of supplemental data on direct marketing of livestock needed by the Agricultural Adjustment Administration . . .	6,930
Classification of cotton to which the Secretary of Agriculture has taken title through the Agricultural Adjustment Administration	3,500
Grading butter purchased by the Agricultural Adjustment Adminisgration for disposal through the Federal Emergency Relief Administration	4,984
Assistance to officials of the Agricultural Adjustment Administration on technical matters connected with the handling of large quantities of cotton to which the Secretary of Agriculture has taken title under recent legislation ***	1,615
Miscellaneous activities connected with the preparation of applications and contracts for various agricultural commodities, work on marketing agreements, conversion factors in connection with the processing taxes, etc.	22,758
	$601,101*

*Of this amount $189,743 is shown in the Budget schedules and the transfer of $411,358 has been approved since the Budget was prepared.

Project	1934
Compilation of statistics of special importance to the agricultural program. Data are being obtained on prices paid by farmers for a comprehensive list of items in numerous towns throughout the country. This will furnish information on differences in prices in different sections and will provide a sound basis for future activities in the retail price reporting field	$ 255,000
Compilation of data on tax delinquency, farm mortgage foreclosures and land values. These data will be obtained from county records in selected counties in each State. At present no adequate basis exists for estimating the extent of tax delinquency, and the trends in mortgage foreclosures, changes in land value, etc. The compilations which are now being made will furnish comprehensive information on these subjects.	1,175,100
Gathering and compiling statistics on cotton prices, quality, movement, tare, etc. This study will ascertain the place of consumption of cotton produced in various sections of the Cotton Belt, to determine the producing area tributary to each port or concentration area, and to determine the lines of movement and points of concentration essential to the most economical marketing of the cotton crop. A study will be made of the relationship of price differentials for cotton and such factors as variety, soil, etc. Data will be gathered also on the quality of linters being produced by different oil mills and on the relative merits of various bale coverings	64,245
Compilation of historical series on foreign trade in agricultural products	4,200
Compilation of data on Russian rainfall to provide a basis for forecasting future production	800
Drafting work required in presenting information gathered by the bureau	5,000
Preparation of indexes to sources of information on consumption statistics and commodity prices, movement, and other economic data	1,530
	$1,505,875

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AGRICULTURAL ADJUSTMENT ADMINISTRATION

(a) Salaries and Expenses, Agricultural Adjustment Administration

Appropriation, 1932	- - - - -
Appropriation, 1933	- - - - -
Appropriation, 1934	$100,000,000
Budget Estimate, 1935	- - - - -

Note: This is the direct appropriation of $100,000,000 made in Section 12(a) of the Agricultural Adjustment Act, approved May 12, 1933. (Title 1, Public No. 10, 73d Congress.)

PROJECT STATEMENT

Projects	1933	Estimated 1934	Estimated 1935(*)	Increase or Decrease
Obligated:				
General Administration	$17,374	$624,802	$624,802	- - -
Effectuating reduction in acreage or reduction in the production for market or both...	- - -	707,700	1,000,000	$ + 292,300 (1)
Removal of Agricultural Surpluses.....	- - -	22,646	105,402	+ 82,756 (2)
Effecting marketing agreements, codes of fair competition, issuing licenses and enforcing.....	- - -	1,791,579	3,291,641	+ 1,500,062 (3)
Protecting Consumers Interests.....	- - -	104,478	101,478	- 3,000 (4)
Total.....	17,374	3,251,205	5,123,323	+ 1,872,118
1934 appropriation obligated in 1933.....	- 17,374	+ 17,374	- - -	- - -
1934 appropriation obligated in 1935.....	- - -	+ 5,123,323	-5,123,323	- - -
Unobligated balance available for 1936.....	- - -	91,608,098	- - -	- - -
Total appropriation.....	- - -	100,000,000	- - -	- 100,000,000

(*) Salaries for 1935 are estimated at base rates, but are subject to such percentage reduction as may be in effect for that year. Section 10(a) of the Agricultural Adjustment Act waives impoundment of funds on account of reduction in compensation.

Work Done under This Appropriation

The Agricultural Adjustment Act (Title 1, Public 10, 73d Congress, May 12, 1933) provides for two sources of funds to finance the activities provided for in the act. This appropriation is the first of these and is provided for as follows:

> "Sec. 12. (a) There is hereby appropriated, out of any money in the Treasury not otherwise appropriated, the sum of $100,000,000 to be available to the Secretary of Agriculture for administrative expenses under this title and for rental and benefit payments made with respect to reduction in acreage or reduction in production for market under part 2 of this title. Such sum shall remain available until expended."

The second source of funds as provided under Section 12(b) of the Agricultural Adjustment Act, is from processing and other taxes, (see following items) the proceeds of which (see b - Advances to Agricultural Adjustment Administration) are also available for administrative expenses and rental and benefit payments, as well as for expansion of markets, removal of surplus agricultural products, and refunds on taxes. An additional source of funds is provided in Section 220 of the Industrial Recovery Act, (see following items).

Inasmuch as it is now estimated that proceeds from processing and other taxes will be sufficient ultimately to cover all rental and benefit payments, as well as other expenses chargeable exclusively against such tax collections, the current budget estimates of obligations under this appropriation are for administrative expenses only; the remainder of the appropriation being left available for future administrative expenses, or for rental and benefit payments in case tax collections fail actually to cover rental and benefit and other expenses payable therefrom.

Estimated administrative and other expenses to be charged to this appropriation are classified by projects as follows:

General Administration - Salaries and expenses not directly assignable to any one of the activities carried on under the Act.

(1) Effectuating reduction in acreage or the reduction in the production for market, or both - These are expenses incurred in the general field indicated, but which are not really assignable to any particular program for the reduction in acreage or production of a specific co modity.

The increase of $292,300 in contemplated obligations results from estimates that expenses in connection with this project will continue for a full year in 1935 whereas some of the plans for reduction in acreage or production for market of agricultural commodities were not initiated until late in the fiscal year 1934, and expenses in connection therewith will therefore be less in 1934 than in 1935.

(2) Removal of agricultural surpluses - Salaries and expenses of personnel engaged in developing and executing plans for the removal of surplus commodities in export or other markets.

The estimated increase of $82,756 in obligations for 1935 is occasioned by the same reasons as the preceding increase.

(3) Effecting marketing agreements, codes of fair competition, issuing licenses and enforcing - These expenses include expenses in Washington in connection with the developing and promulgating of marketing agreements, codes, and licenses and the expenses of a field organization for the administration and enforcement of such agreements, codes, and licenses.

During much of 1934 it is estimated that the activities under this project will consist of the preliminary work of developing and putting into effect of agreements, codes and licenses, and that many of such instruments will actually be in effect only a small portion of the year. It is estimated therefore that the cost of enforcement of these instruments will greatly increase during the fiscal year 1935. The total estimated increase of $1,500,062 in obligations is therefore made up of anticipated increased enforcement costs, which include an increased staff of personnel in Washington and a necessarily large field organization of investigators and accountants.

(4) Protecting consumers interests - The Agricultural Adjustment Act states, among other things, the declared policy of Congress to be "To protect the consumers' interest by readjusting farm production at such level as will not increase the percentage of the consumers' retail expenditures for agricultural commodities or products derived therefrom, which is returned to the farmer, above the percentage which was returned to the farmer in the prewar period, August, 1909 - July, 1914."

An organization has therefore been set up for carrying out this policy, by independently analyzing all of the activities carried on under the act, from the standpoint of the consumer, and by assisting in formulating all activities in such a manner that the consumers' interests will be protected as set forth in the above declaration of policy.

The decrease of $3,000 is due to the fact that a transfer of this amount was made to the Bureau of Labor Statistics in 1934 for the collection of certain price data and it is estimated that no further expenditures for this work will be necessary in 1935.

Permanent Indefinite Appropriation

(b) Advances to Agricultural Adjustment Administration.

Appropriation, 1932	- - -
Appropriation, 1933	- - -
Appropriation, 1934	$855,379,811
Estimated Obligations, 1934 . . .	855,379,811
Budget Estimate, 1935	831,022,428
Decrease, Budget 1935 compared with Estimated Obligations, 1934 . .	24,357,383

This is the appropriation made by Section 12(b) of the Agricultural Adjustment Act, explained below under "Work Done Under This Appropriation".

PROJECT STATEMENT

Projects	1933	Estimated 1934	Estimated 1935	Increase or Decrease
Obligated:				
Effectuating reduction in acreage, or reduction in the production for market, or both	- - -	$738,379,811	$658,022,428	-$80,357,383 (1)
Removal of agricultural surpluses	- - -	87,000,000	53,000,000	- 34,000,000 (2)
Refunds of Taxes	- - -	30,000,000	120,000,000	+90,000,000 (3)
Total	- - -	855,379,811	831,022,428	- 24,357,383

Work Done Under This Appropriation

The Section of the Agricultural Adjustment Act establishing this appropriation reads as follows:

"Sec. 12. (b) In addition to the foregoing, the proceeds derived from all taxes imposed under this title are hereby appropriated to be available to the Secretary of Agriculture for expansion of markets and removal of surplus agricultural products and the following purposes under part 2 of this title: Administrative expenses, rental and benefit payments, and refunds on taxes. The Secretary of Agriculture and the Secretary of the Treasury shall jointly estimate from time to time the amounts, in addition to any money available under subsection (a), currently required for such purposes; and the Secretary of the Treasury shall, out of any money in the Treasury not otherwise appropriated, advance to the Secretary of Agriculture the amounts so estimated. The amount of any such advance shall be deducted from such tax proceeds as shall subsequently become available under this subsection."

The major portion of the funds required for effectuating the declared policy of the Agricultural Adjustment Act are provided by this appropriation. These funds are used for the payment of rental and benefit payments in connection with various programs for the reduction of acreage or reduction in the production for market, or both, of various agricultural commodities. Such payments are being made in connection with production control programs for cotton, wheat, tobacco, corn and hogs. Similar programs for other commodities may be adopted.

These funds are also used for the purpose of removal of agricultural surpluses. Expenditures have been approved for the removal of surplus hogs, wheat and butter.

Refunds of taxes collected under the Agricultural Adjustment Act are made by the Bureau of Internal Revenue to whom funds from this appropriation are transferred for that purpose by the Department of Agriculture. These refunds include refunds for previously taxed commodities sold for charitable purposes or exported and refunds of floor stock taxes which are to be made upon the discontinuance of processing taxes.

Administrative expenses directly connected with any of the above projects also are charged to this appropriation.

Explanation of Project Statement

(1) Effectuating reduction in acreage, or reduction in the production for market, or both.

Estimated obligations for 1934 consist of total estimated expenditures (including administrative expense) in connection with reduction programs adopted or being formulated at the time the budget was prepared. Estimates for 1935 are based on the assumption that such reduction programs will be continued or repeated in 1935. Estimated obligations for 1935 are reduced, first, because in 1934 benefit payments are included for reduction of two years cotton production (1933 and 1934) whereas the 1935 estimate only includes one year's payments; and second, because of an anticipated decrease in administrative expense in repeating or continuing reduction programs.

(2) Removal of Agricultural Surpluses.

Estimates of removal of surpluses for 1934 include surplus removal costs and administrative expenses occasioned directly thereby. The estimate for 1935 is decreased because it is anticipated that expenditures for removal of surplus pork products in 1935 will be reduced and that administrative expenses will also be less.

(3) Refund of Taxes.

The estimate for refunds of taxes for 1934 covers refunds for charitable organization purchases and for exports only. The estimate for 1935 is increased by $90,000,000 to allow for the refunding of floor stock taxes when processing taxes are discontinued. The actual payment of these refunds will be made by the Bureau of Internal Revenue in a period subsequent to 1935. Inasmuch as the obligation to refund is incurred with the levying of processing taxes and the date on which such taxes will end is not determined, the obligations are recorded as such in the 1935 estimates.

Special Fund

(c) Proceeds from Processing Taxes - Agricultural Adjustment Administration

This is the special fund, authorized by the first part of Sec. 12 (b) of the Agricultural Adjustment Act and is established for the receipt of proceeds from Processing Taxes. Obligations to date and estimated for 1935 from this special fund are included in the preceding item covering Advances under Section 12 (b) of the Agricultural Adjustment Act.

(d) Permanent appropriation, special fund:

Special Deposits (Cotton)--

This fund operates to take care of the financial transactions in connection with the acquisition and disposition of spot cotton and cotton futures contracts by the Secretary of Agriculture, as provided for by part 1, title I of the Agricultural Adjustment Act approved May 12, 1933, and the disposition of the proceeds from the sale of such cotton holdings as follows:

(a) The excess of the sales price at which options are exercised over 6 cents per pound (the price at which the Secretary of Agriculture sells cotton to producers) is paid to producers.

(b) The 1-cent excess of the price at which the Secretary sells cotton to producers (6 cents) over the purchase price of the cotton from the Farm Credit Administration (5 cents basis price) is to be used to cover the carrying charges on the cotton holdings.

No acreage payments or administrative expenses are disbursed from this fund.

The statement of receipts and disbursements from this fund will be found on page 479 of the Committee Print.

Emergency Funds Applicable
Under This Heading

(e) National Industrial Recovery, Agricultural Adjustment Administration

This expenditure schedule covers an allocation of $37,000,000 under the provisions of Section 220 of the National Industrial Recovery Act, to supplement the proceeds derived from processing taxes levied in connection with the control and reduction in the production of corn.

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MISCELLANEOUS

Interchange of Appropriations

This paragraph permits interchange, within the limitations indicated, of appropriations for the miscellaneous expenses of the work of any bureau, division, or office. It has been carried in the bill for many years, and constitutes an administrative arrangement of great value, especially when emergencies arise.

As called for in the proviso, a statement of the transfer during the fiscal year 1933 is inserted in the Budget under this item.

Work for Other Departments

Under this item the Department of Agriculture renders services, such as inspections, analyses, and tests of food and other products, to other Government agencies upon request, with transfer of appropriations to the Department of Agriculture in such amounts as may be necessary for the performance of the work. Services of the character indicated are rendered to the Army, Navy, and Marine Corps, the Veterans' Administration, the Post Office Department, and other Government agencies. This provision is of vital importance to the most advantageous use, for the benefit of the Government as a whole, of the various services which the staff of the Department of Agriculture is in position to render.

Experiments in Livestock Production in Southern United States

Appropriation, 1932	$43,500
Appropriation, 1933	41,325
Appropriation, 1934	39,560
Estimated Obligations, 1934	35,604
Budget Estimate, 1935	37,036
Increase, Budget 1935, compared with Estimated Obligations, 1934	1,432

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Administration.....	$12,290	$11,393	$11,851	+ $458	- - -
Animal Husbandry:					
Beef cattle.....	6,880	6,400	6,658	+ 258	- - -
Swine.....	3,006	2,760	2,871	+ 111	- - -
Horses and mules.....	2,020	1,877	1,952	+ 75	- - -
Dairy cattle.....	10,369	9,613	10,000	+ 387	- - -
Pasture and forage.....	3,840	3,561	3,704	+ 143	- - -
Total.....	38,405	35,604	37,036	+ 1,432	- - -
Unobligated:					
Salary reduction.....	2,160	1,909	- - -	- - -	- - -
Working funds reduction	760	2,047	- - -	- - -	- - -
Total Appropriation.....	41,325	39,560	37,036	- 2,524 (1)	

(1) This reduction of $2,524 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.	-$1,909
Curtailments in 1934 working funds	- 2,047
5% salary restoration	+ 1,432
	- 2,524

Work Done Under This Appropriation

This is a regional station located by Jeanerette, near New Iberia, La., to determine the proper feeding, breeding, and handling of dairy and beef cattle and pigs in the Gulf Coast country. The by-products of cotton, rice, and sugar are tried out as animal feeds with a view of encouraging diversified farming by the raising of more livestock. Investigations are made also in the establishment, improvement, and untilization of pastures. The Bureaus of Animal Industry, Dairy Industry, and Plant Industry are cooperating in this work. Experiments with horses have the object of determining the comparative usefulness of mules and horses for the farm work of the region.

Emergency Funds Applicable Under This Heading

Allotments under the National Industrial Recovery Act aggregating $117,425 including Public Works Administration funds of $67,425 and Civil Works Administration funds of $50,000, have been made as follows:

(1) $67,425 for physical improvements at the station, as drainage, fences, repairs and painting buildings, roads, water system, laboratories, etc.

(2) $50,000 for the clearing and drainage of land and road construction on the same premises.

Passenger-Carrying Vehicles

The general authorization for the maintenance, operation and repair of motor-propelled and horse-drawn passenger-carrying vehicles is continued for the fiscal year 1935. Specific limitations on expenditures appear in the next pertaining to the several bureaus requiring purchase of such vehicles, as shown in the concluding paragraph of the language for each bureau.

Collection of 1931 and Prior Seed Grain Loans

Note:- This item has been transferred to the Farm Credit Administration.

Soil Erosion Investigations

WORK UNDER THIS APPROPRIATION
(General)

This project is conducted jointly by the Bureaus of Chemistry and Soils and Agricultural Engineering under allotments as shown below. A separate allotment is made to the Forest Service, as shown under Erosion-Streamflow Investigations.

The Bureau of Chemistry and Soils is concerned with investigations to determine the causes of erosion, and to devise farm practices and cropping systems for the prevention or control of erosion, for the conservation of rainfall, and for the renewal of eroded lands.

The Bureau of Agricultural Engineering is concerned with developing types of erosion control works most suitable for the climatic and soil conditions under which they operate, to develop economical methods of constructing such works, and to determine the requirements of various types of farm machinery for efficient operation over terraced land.

The Forest Service is concerned with erosion-stream flow investigations on forest and range lands to determine the effect of forest, brush, or range cover on erosion and stream flow, and to develop methods which will conserve soil fertility and moisture for forest and forage crops and deliver the maximum amount of usable water for irrigation, municipal use, power, navigation, etc. The ultimate purpose of all these investigations is to develop a comprehensive program of soil erosion control for the entire United States.

Bureaus of Chemistry and Soils and Agricultural Engineering
(Forest Service shown separately on subsequent pages)

	Fiscal Year	Allotments to Bureau of Chemistry and Soils	Allotments to Bureau of Agricultural Engineering	Total
Appropriation.....	1932	$ 156,850	$ 73,150	$ 230,000
Appropriation.....	1933	100,000	100,000	200,000
Appropriation.....	1934	96,264	96,396	192,660
Estimated Obligations	1934	81,000	80,457	161,457
Budget Estimate.....	1935	84,392	83,934	168,326
Increase, Budget 1935, compared with Estimated Obligations, 1934		3,392	3,477	6,869

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Soil Erosion Stations:					
Guthrie, Okla:					
Chemistry and Soils	$ 8,300	$ 7,685	$ 8,010	+ $ 325	---
Agric. Engineering	6,308	5,900	6,000	+ 100	---
Total	14,608	13,585	14,010	+ 425	---
Hays, Kansas:					
Chemistry and Soils	3,917	3,860	4,020	+ 160	---
Agric. Engineering	4,000	3,600	4,000	+ 400	---
Total	7,917	7,460	8,020	+ 560	---
Temple, Texas:					
Chemistry and Soils	8,272	7,400	7,710	+ 310	---
Agric. Engineering	5,913	5,600	6,000	+ 400	---
Total.....	14,185	13,000	13,710	+ 710	---
Tyler, Texas:					
Chemistry and Soils	8,470	7,585	7,900	+ 315	---
Agric. Engineering	8,248	6,700	7,000	+ 300	---
Total.....	16,718	14,285	14,900	+ 615	---
Bethany, Missouri:					
Chemistry and Soils	9,300	8,070	8,410	+ 340	---
Agric. Engineering	11,692	8,857	9,000	+ 143	---
Total.....	20,992	16,927	17,410	+ 433	---
Statesville, N.C.:					
Chemistry and Soils	8,773	7,700	8,020	+ 320	---
Agric. Engineering	8,698	7,900	8,500	+ 359	+ $ 241 (2)
Total.....	17,471	15,600	16,520	+ 679	+ 241
Pullman, Wash:					
Chemistry and Soils	8,923	7,300	8,130	+ 330	---
Agric. Engineering	7,331	6,300	7,000	+ 200	---
Total.....	16,254	14,600	15,130	+ 530	---
Clarinda, Iowa:					
Chemistry and Soils	10,660	9,000	9,370	+ 370	---
Agric. Engineering	11,038	7,900	8,500	+ 600	---
Total.....	21,698	16,900	17,870	+ 970	---
LaCrosse, Wisc.:					
Chemistry and Soils	8,415	7,700	8,025	+ 325	---
Agric. Engineering	7,519	5,600	7,000	+ 400	+ 1,000 (2)
Total.....	15,934	13,300	15,025	+ 725	+ 1,000
Zanesville, Ohio:					
Chemistry and Soils	11,230	9,200	9,585	+ 385	---
Agric. Engineering	13,305	10,300	10,000	+ 300	- 600 (2)
Total	24,535	19,500	19,585	+ 685	- 600
Raleigh, N.C.:					
Agric. Engineering	586	---	---	---	---
Field Office, Guthrie, Okla.					
Agric. Engineering	6,346	6,900	7,000	+ 100	---

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% Salary Restoration	Increase or Decrease: Working Funds
Obligated: (cont'd.)					
Washington H'dqrts:					
Chemistry and Soils	5,760	5,000	5,212	+ 212	---
General Investigations:					
Agric. Engineering	2,459	4,400	3,934	+ 175	- 641 (2)
Totals:					
Chemistry and Soils	92,020	81,000	84,392	+ 3,392	---
Agric. Engineering	93,443	80,457	83,934	+ 3,477	---
Total.....	185,463	161,457	168,326	+ 6,869	---
Unobligated:					
Salary reduction:					
Chemistry and Soils	7,484	6,574	---	---	---
Agric. Engineering	6,042	7,429	---	---	---
Working funds reduction:					
Chemistry and Soils	496	8,690	---	---	---
Agric. Engineering	515	8,510	---	---	---
Grand Total.....	200,000	192,660	168,326	- 24,334 (1)	

(1) This reduction of $24,334 below the allotment for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	- $14,003
Curtailments in 1934 working funds.....	- 17,200
5% salary restoration.....	+ 6,869
	- 24,334

(2) The increases and decreases shown in the column for "Working Funds" are due to a shifting of funds between projects and to consideration of the 5% salary restoration item. There are, however, no actual increases or decreases in working funds as far as the total appropriation is concerned.

Work Done Under This Allotment
(Bureau of Chemistry and Soils)

Work under this allotment consists of investigations to determine the causes of erosion; to devise methods for prevention or control of erosion, for conservation of rainfall, and for the renewal of eroded lands; and to develop a comprehensive program of soil erosion control for the entire United States. More than 21,000,000 acres of land formerly under cultivation have been essentially ruined by soil erosion, and 75 percent of all land in cultivation is being impoverished by this destructive agency. Investigations on erosion control are conducted at erosion experiment stations located in the major soil regions of the United States. Stations have been established at Guthrie, Okla., Temple, Tex., Tyler, Tex., Hays, Kans., Bethany, Mo., Statesville, N.C., Pullman, Wash., Clarinda, Iowa, LaCrosse, Wis., and Zanesville, Ohio. The work includes determination of soil and water losses under various controlled conditions and their relation to character of soil, rainfall, etc.; study of the effect of modification of soil conditions on erosion and

run-off with a view to applying practical methods to general farm usage in the region; renewal of productivity of eroded land; study of relation of native vegetation to soil and water losses; study of relation of soil and water losses to yield and quality of crops; and determination of the best rotations, soil treatments, and cropping practices for erosion control. Soil erosion investigations are conducted in cooperation with the Bureau of Agricultural Engineering and with State Experiment Stations.

Emergency Funds Applicable Under This Heading

Civil Works allotments totaling $34,033 have been made for maintenance work (repairing buildings, farm roads, fences, clearing fields, ditching, etc.) at soil erosion stations as follows:

Iowa	$ 1,714
Kansas	7,714
Missouri	1,872
North Carolina	5,786
Ohio	7,070
Oklahoma	1,886
Texas	3,086
Texas	1,370
Washington	965
Wis	2,570
Total	34,033

(Bureau of Agricultural Engineering)

The work under this project has to do with the engineering features of the Department's soil erosion investigations and is financed by an allotment of funds made to the Bureau by the Secretary of Agriculture. In cooperation with the Bureau of Chemistry and Soils, the Forest Service, and State Agricultural Experiment Stations and other agencies, ten soil erosion farms in nine States have been established in whole or in part. Studies are being made of engineering problems relating to the design and construction of satisfactory erosion control works such as terraces and soil saving dams; the development of more efficient machinery for constructing terraces; and the requirements of farm machinery for operation over terraced land, under the different soil, crop, and climatic conditions present in those areas.

Emergency Funds Applicable Under This Heading

Allotments under the National Industrial Recovery Act have been made for physical improvements such as sheds, alterations to equipment, building and repairing of roadways, fences, etc., on Government property, all of which are necessary in order to provide proper facilities for carrying out investigations now under way.

The aggregate amount of these allotments is as follows:

Iowa	$ 7,200	Oklahoma	5,500
Kansas	2,800	Texas	15,300
Missouri	6,800	Washington	2,350
North Carolina	5,700	Wisconsin	6,600
Ohio	5,500		
		Total	57,750

This money was made available August 3, 1933 and will be expended during the fiscal year 1934.

Appropriation, 1932	$100,000
Appropriation, 1933	89,160
Appropriation, 1934	83,814
Estimated Obligations, 1934	64,386
Budget Estimate, 1935	---(a)

(a) No estimate is made for the regular appropriation for 1935 as the Budget Schedules provide for the use of funds for this purpose, including administration in the District of Columbia and elsewhere, from the allotment which has been made for this work by the Federal Emergency Administration of Public Works.

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease 5% Salary Restoration	Increase or Decrease Working Funds
Obligated:					
Appalachian Forest Experiment Station	$5,378	$4,157	$4,371	+ $ 196	$18 (2)
California Forest and Range Experiment Station	25,627	19,893	21,001	+ 1,082	26 (2)
Intermountain Forest and Range Experiment Station	17,297	13,735	14,339	+ 694	- 90 (2)
Lake States Forest Experiment Station	4,593	3,520	3,598	+ 152	- 74 (2)
Southern Forest Experiment Station	4,949	3,830	4,016	+ 161	+ 25 (2)
Southwestern Forest and Range Experiment Station	21,333	16,586	17,479	+ 814	+ 79 (2)
Washington, D. C.	3,460	2,665	2,838	+ 157	+ 16 (2)
Total	82,637	64,386	67,642	+ 3,256	- - -
Unobligated:					
Salary reduction	6,187	4,341	- - -	- - -	- - -
Working funds reduction	336	15,087	- - -	- - -	- - -
Deduct Public Works allotment of	- - -	- - -	- 67,642	- - -	- - -
Total Appropriation	89,160	83,814	- - -	- 83,814 (1)	

(1) This reduction of $83,814 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut	-$4,341
Curtailments of 1934 working funds	-15,087
Budget provision for financing in 1935 from Public Works allotment	-67,642
5% salary restoration	+ 3,256
	-83,814

(2) The increases and decreases indicated under "working funds" by projects are due to consideration of the 5% salary restoration for the total appropriation, which when applied by projects, results in minor increases and decreases in working funds which have no effect on the total working funds available.

Work Done Under this Allotment

Erosion on a serious scale is taking place on millions of acres of forest and range lands. It is menacing the agricultural life on irrigated lands through silting reservoirs and streams; it is increasing the necessity for dredging the channels of rivers and harbors; it is a contributory cause of floods and of the increasing low water stages in streams. It is responsible for decreased forage production on many western ranges. Nearly every watershed in the United States, regardless of size or importance, contains some portion of the 615 million acres of forest land or of the 495 million acres of untimbered western range land or both. The disastrous Mississippi flood among other floods of recent years, the rapidly increasing demand for irrigation water in various parts of the West, and the shortage of municipal water supplies have attracted much greater attention to both forest and range in relation to streamflow regulation and erosion control.

The purpose of erosion-streamflow investigations on forest and range lands is to determine the effect of forest, brush, or range cover, or of combinations of them on erosion and streamflow. It is to determine whether such vegetative cover may be used as the major means of obtaining satisfactory conditions of water flow and of controlling erosion on entire watersheds or important parts of watersheds, and, if so, whether it must be used in virgin condition or may be modified by cutting or grazing. It is to determine how to conserve soil fertility and moisture for the growing of forest and forage crops, and to deliver the maximum amounts of usable water for irrigation, municipal use, power, navigation, etc. It is to make waste lands productive, to protect against destructive floods, and to safeguard public and private works, investments in which already run into hundreds of millions of dollars. In short, it is designed to furnish facts and remedial measures as a basis for action by Federal, State, and other agencies. Such investigations are being carried on by a series of forest and range experiment stations where a coordinated attack can be made upon the interrelated problems of forest and range.

Application of research results was given great impetus during the past year. The Civilian Conservation Corps has nearly 100 erosion-control camps on national-forest lands and 111 on State and private lands. The main purpose of these camps is to restore forest and other cover where its depletion has been the cause of accelerated erosion or excessive run-off and to supplement this plant cover by check dams or other engineering works to retard water flow and to aid in holding soil. Research results have furnished the basis for much of this work. The studies of the Southern Forest Experiment Station, in reclaiming gullies on abandoned farm lands in the South, for example, have helped to show how the planting of black locust and other trees and the use of vines and other creeping plants or grasses can be used to check further erosion and to restore the land to a productive condition. Likewise studies by the Intermountain Forest and Range Experiment Station of seeding and planting of herbaceous plants for erosion control of untimbered range lands in the West have helped materially in developing the western C.C.C. erosion control program.

The southern California flood of January 1 which caused terrific destruction and cost many lives, was entirely due to the fact that certain watersheds were burned over only a month previously. Thus while other adjoining streams with their dense chaparral cover had only high and slightly

muddy water, the streams from the burned areas reached excessive flood stages, and from some of them a flow of mud occurred. Nearby plots, receiving between 8 and 10 inches of rain in 30 hours, showed that denudation of the cover was responsible for a combined mud and water flow 38 times that of the flow from brush covered plots.

In the fall of 1932 a 219,000-acre fire destroyed the forest and other cover on large portions of the watersheds furnishing the water supply for Santa Barbara, Montecito, Ventura, and many smaller agricultural and other communities. Extensive test seedings were made by the California Forest Experiment Station. On 4,000 acres 18 tons of seed were broadcast by hand, and on 2,000 acres 9 tons were sown by airplane. The results with Trieste mustard are outstanding. It formed a satisfactory cover on good soils from a sowing of about 4 pounds per acre. Black mustard required 5 pounds or more to produce a satisfactory stand. Both species had attained a height of 24 to 40 inches and had produced fruit by the spring of 1933. White and sour clover averaged less than 6 inches in height. Gullies, formed by a heavy January storm before active germination, are now conspicuously marked by dense growth of control plants blocking the run-off channels. Comparable areas seeded by airplane show results in general similar and equal to those on hand-sown areas. There is, however, a decided scarcity of plants on most of the higher and steeper slopes, where violent winds lifted away the loose, fine soil and excessive drying took place.

Road building is a prolific source of accelerated erosion throughout the West. Cuts and especially fills are especially subject to heavy soil washing. The California Station has superintended application of its research results to extensive plantings of brush and other vegetation, supplemented by contour furrows and other aids, on cuts and fills of a number of California mountain highways. Checking the erosion of these exposed slopes reduces both highway-maintenance costs and depositions of eroded material on valuable property. Specifications for erosion control prepared by research personnel are now being incorporated in the road-construction plans in southern California and elsewhere.

Studies on the Boise River Watershed in Idaho, made by the Intermountain Forest and Range Experiment Station, clearly reveal the role played by various types of range vegetation representing different stages of depletion, for controlling surface run-off and erosion of granitic soils under different conditions of rainfall and trampling by livestock. Using a portable apparatus capable of producing different intensities of artificial rainfall over experimental areas and measuring the run-off and erosion caused thereon, it has been determined that the valuable bunchgrass type, when subjected to two inches of rainfall of cloudburst intensity, yields from untrampled and trampled areas, respectively, 52 and 61 per cent run-off, and 260 pounds and 400 pounds of silt per acre. On annual cheat grass areas, which are now representative of a large proportion of the watershed, comparable rainfall induced four times more erosion on untrampled and twenty times more on trampled areas. On seriously overgrazed areas characterized by a thin stand of annual weeds, the amount of silt removed from untrampled areas was 11 times that of the untrampled bunchgrass and and from trampled areas 21 times that of trampled bunchgrass range, or to the extent of 8,800 pounds per acre. The more adequate erosion control afforded by the bunchgrass type is due in large degree to the greater

density of vegetation and the tougher, more fibrous and more extensive character of the root systems of the perennial grasses. Since storms of cloudburst proportions are characteristic of this region, the possibilities for destructive, silt laden floods and excessive silting of costly reservoirs and irrigation systems will be readily appreciated.

(Forest Service)
Authorization covering purchase of
Passenger-carrying vehicles

The language covering the authorization for expenditure of not to exceed $1,120 for purchase of passenger-carrying automobiles is being omitted from the 1935 Budget, since provision is being made for financing 1935 expenditures from allotments made by the Federal Emergency Administration of Public Works.

Forest Roads And Trails

Appropriation, 1932	$12,500,000
Appropriation, 1933	8,905,000
Appropriation, 1934	4,457,400
Estimated Obligations, 1934	4,414,616
Budget Estimate, 1935.....	1,878,124
Decrease, Budget 1935 compared with Estimated obligations 1934.....	2,536,492

PROJECT STATEMENT

Projects	1933	1934 (Estimated)	1935 (Estimated)	Increase or Decrease: 5% salary Restoration	Increase or Decrease: Working Funds
Obligated:					
Forest Highways - Construction and maintenance of forest roads of primary importance to States and counties.....	$5,776,029	$4,414,616	$1,878,124	+$11,284	-$2,547,776
Forest Road development - Construction and maintenance of forest roads and trails of primary importance to protection and utilization of the National Forests.....	2,903,632	- - -	- - -	- - -	- - -
Total.....	8,679,661	4,414,616	1,878,124	+11,284	-2,547,776(2)
Unobligated:					
Salary reduction.....	220,734	42,784	- - -	- - -	- - -
Working funds reduction.....	4,605	- - -	- - -	- - -	- - -
Total appropriation,.....	8,905,000	4,457,400	1,878,124	- 2,579,276 (1)	

(1) This reduction of $2,579,276 below the appropriation for 1934 consists of:

Impoundment of 6-2/3% of 15% pay cut.....	- $42,784
Further reduction of working funds for Construction and maintenance of Forest Highways in 1935.....	-2,547,776
5% salary restoration	+ 11,284
	-2,579,276

(2) The decrease of $2,547,776 is explained as follows:

The Forest Roads and Trails appropriation of which this item is a part is authorized by the provisions of the Federal Highway Act approved November 9, 1921.

Under this Act an authorization to appropriate $12,500,000 for the fiscal year 1933 was approved by the Act of May 5, 1930 (46 Stat. 261). The Agricultural Appropriation Act for the fiscal year 1933 required that the entire $12,500,000 be obligated. Prior to June 30, 1934, all except $204,476 in the Alaska appropriation will be obligated. Of the entire $12,500,000 authorized for appropriation, all excepting $2,082,600 has been appropriated. To discharge obligations incurred under legislation, an appropriation of $1,878,124 is estimated as sufficient. Due to Congress having approved no legislative authorization subsequent to that for the fiscal year 1933, no appropriation other than that remaining in the authorization for that year can be approved. Accordingly, the amount to be appropriated for the fiscal year 1935 is the amount required for the discharge of obligations falling due in that year.

Change in Language

It is recommended that in the third line the amount $74,269 be eliminated and $10,521 be substituted. This is due to curtailment in expenditure for Departmental personal services in the District of Columbia brought about by reduction in the size of the regular program.

In the last proviso, the change from 1934 to 1935 is made to make the proviso applicable to the fiscal year 1935.

Work Done Under This Appropriation

This appropriation is made for Forest Roads and Trails under the provisions of Section 23 of the Federal Highway Act of November 9, 1921. It is divided into two parts, the Forest Highway Fund and the Forest Road Development Fund. The Forest Highway Fund is expended for roads necessary to the Forests but of primary importance to the States, counties or communities within, adjoining or adjacent to the National Forests in the Highway Systems of the States. The Forest Road Development fund is appropriated and expended for roads and trails of primary importance to the administration, protection and utilization of the National Forests. Due to the Forest Road Development Fund having already been allotted its entire share of the total authorized for appropriation, none of the money from the recommended fiscal year 1935 appropriation will be available for that fund.

The Forest Road and Trail System as planned includes 92,064 miles of road (Forest Highways 16,852 miles and Forest Development roads 75,212 miles) and 149,838 miles of trails). The road system when completed will provide a mile of road for 2,442 acres or approximately four square miles as an average.

Cooperative Construction of Forest Roads and Trails

This appropriation was entirely expended in the fiscal year 1933, Total obligations amounting to $26,099.

Emergency Funds Applicable Under This Heading

National Industrial Recovery, Agriculture, Forest Service, 1933-1935 (Forest Roads and Trails)

Allotments aggregating $25,000,000 were made to the Forest Service by the Federal Emergency Administration of Public Works under Sec. 205 of the National Industrial Recovery Act for the construction and maintenance of Forest Highways, Roads, Trails, and Bridges.

The estimated obligation by projects under these allotments are given below:

Projects	1933	1934 (Estimated)	1935 (Estimated)
1. Forest Highways Construction and maintenance of Forest Roads of Primary Importance to States and Counties - -- - - - - - - - -	- --	$13,493,548	$1,506,452
2. Forest Roads, Trails, etc. Construction and maintenance of Forest Roads, Trails, etc., of primary importance to protection and utilization of the National Forests	- --	4,800,000	5,200,000
Total Obligations	- - -	18,293,548	6,706,452

Work Done Under This Allotment

The total of $25,000,000 is divided into $15,000,000 for Forest Highways and $10,000,000 for roads, trails and bridges necessary to the protection, administration and utilization of the National Forests.

The $15,000,000 will be expended in the construction and improvement of National forest Highways of the same character as are approved for regular appropriations made under Sec. 23 of the Federal Highway Act. $350,000 has been apportioned to Alaska and the balance apportioning the regular Forest Highway fund.

The allotment of $10,000,000 is available for the construction and maintenance of roads, trails and bridges of the same character as specified in the section "Improvement of the National Forests" of the Agricultural Appropriation Act for the fiscal year ending June 30, 1932, approved February 23, 1931. These comprise transportation facilities of primary importance for the protection, administration and utilization of the National Forest land and resources and in general are of the same character as are usually financed from the Forest Development Fund obtained as a part of the appropriation for the Forest Road and Trail Item made under the provisions of the Federal Highway Act.

Buildings, Government Island, California (1931-1934)

This project was discontinued at the close of the fiscal year 1933. No expenditures will be made during the fiscal years 1934 or 1935.

Highways Within National Forests, Emergency Construction

No further expenditures will be made on this project after the close of the fiscal year 1934. The project will therefore be discontinued at that time.

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